12 March 1996

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RECEIVED
MAR 13 1996

Dear Ms. Hoditschek:

RE: **Holloman AFB**
Sewage Lagoons Closure Project
Risk Assessment Addendum

Dr. Fred Fisher of Holloman AFB has requested that we submit two copies of the *Risk Assessment Addendum, Sewage Lagoons Closure Project* (RAA) for NMED's review. This report is referred to in Section 6.4 of the May 1995 *Sewage Lagoons Closure Plan* previously submitted.

This risk assessment addresses both human health and ecological risks. The human health risk assessment is essentially an update to the November 1993 *Holloman Risk Assessments, Sewage Lagoons and Lakes Investigation* report. It incorporates additional data obtained since the submittal of the last report.

The ecological risks presented in the RAA completely replaces the November 1993 ecological risk assessment. This ecological risk assessment uses bioassay data to evaluate potential risks, whereas these data were not available in 1993.

The results of this risk assessment will be briefly discussed in the project meeting scheduled in early April. Holloman AFB looks forward to receiving your comments.

Sincerely,

David Shewin for

Kathleen Alsup
Senior Scientist
Radian International LLC

cc: Ron Versaw (FWENC)

HAFB Playa Lakes Risk Assessments

1993 Risk Assessment Volume I

Section 10 (Lake Holloman). Inorganics for groundwater and ditch soil (but not Lake sediments) were tested for normality and then the means were compared to distinguish between contaminants and background. In table 10-3 (exposure point concentrations) values are listed for average and maximum concentrations in sludge and in soil; can't find any statistical analysis of the levels in sludge or soil.

It appears that HAFB is using the term "average" and "reasonable maximum exposure" INCORRECTLY in the 93 risk assessment. The executive summary states that the average scenario uses the average concentration of contaminant in the media and "reasonable maximum" uses the 95% UCL of the mean (what HRMB would consider the average). According to RAGS guidance RME should actually refer to the change of the default exposure parameters (such as water ingested, body weight, etc.), not a change in the media concentration used with the same parameters. I can't determine if these parameters were changed as well for the RME exposure. EPA does favor the use of the 95% UCL of the mean. HAFB appears only to have done a normality test on groundwater samples and soil samples from the ditch (which appear to pass the test). HAFB says they used maximum values when data for UCLs were insufficient, but they don't say ANYWHERE whether the soil values used for the two lakes are averages, 95% UCLs of the mean, or maximums.

primarily surface data that was averaged for ditches and lakes, of course sludge samples, no soil.

Groundwater samples from monitoring wells associated with Lake Holloman (16,17, s-16) indicated transport of contaminants. Two way communication of water between surface and groundwater at the lakes.

Recreational exposures were evaluated for both chronic and subchronic for adults and children. Carcinogen risk estimates based on exposure duration of 70 years.

1996 Risk Addendum (human health)

In the 1993 and 1996 risk assessments, sediment samples (which were near surface composite samples) and sludge values (the deeper, and I think, discrete values?) were averaged together to produce the sludge values. only 2 sed samples, were in Pools A and E so they don't have to be considered.

For compounds that were COCs in both sampling rounds, 95% UCLs were calculated by combining data for both years, but there's no indication if the combined group of samples used was tested for normality (would we expect samples taken from the same area during different years to be a normally distributed group?)

The risk for those COCs for which risk was updated were updated by a ratio method that used the two 95% UCLs of the mean and the old risk level to calculate the new risk level.

This would seem to indicate that the 96 addendum used the same 93 Region III RBCs to assess risk instead of newer toxicity data. ← actually PCB toxicity values were updated.

Risks from ingestion were based on modeled data for the 93 risk assesment but based only on the tissue levels in the single duck sampled for 96. The duck tissue doesn't contain any level of 2 of the new contaminants found in 96 sampling. Table F-30 says that heptachlor epoxide and PCBs were removed as risk drivers for hunters at the ditch because these COCs weren't detected in media, but according to table F-27, these analytes were detected in the duck which was supposedly used to calculate the risk to hunters from duck ingestion.

Ecological

93 report modeled food chain accumulation from media [ ]

96 report used used/benthic invert concentrations to model upstate to higher levels. also sampled ~~higher~~ tissues of higher trophic level organisms

claim DDT decreased by an order of magnitude from 93 to 94

DCN 95-670-008

RISK ASSESSMENT ADDENDUM

SEWAGE LAGOONS CLOSURE PROJECT
HOLLOMAN AIR FORCE BASE, NM

Draft Final

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LIST OF ACRONYMS

AFB	Air Force Base
AWQC	Ambient Water Quality Criteria
BCF	Bioconcentration factor
BEHP	Bis(2-ethylhexyl)phthalate
BRA	Baseline risk assessment
CMS	Corrective measures study
COC	Chemical of Concern
COEC	Chemical of Ecological Concern
COPC	Chemical of potential concern
COPEC	Chemical of potential ecological concern
EPA	U.S. Environmental Protection Agency
EQ	Ecological hazard quotient
ERA	Ecological risk assessment
FWS	U.S. Fish and Wildlife Service
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectroscopy
HCB	Hexachlorobenzene
HI	Hazard index
HSDB	Hazardous Substances Data Base
HSWA	Hazardous and Solid Waste Amendments
HWMR	Hazardous Waste Management Regulations
HWMUs	Hazardous waste management units
IRIS	Integrated Risk Information System
LC_{50}	Median lethal concentration
LD_{50}	Median lethal dose
LOAEL	Lowest observable adverse effect level
ND	Not detected
NMED	New Mexico Environment Department
PCBs	Polychlorinated biphenyls
PPE	Personal protective equipment

LIST OF ACRONYMS (Continued)

RCRA	Resource Conservation and Recovery Act
RTECS	Registry of Toxic Effects of Chemical Substances
SCR	Site Characterization Report
SWMU	Solid waste management unit
TCLP	Toxicity characteristic leaching procedure
TDS	Total dissolved solids
TEF	Toxicity equivalency factor
UCL	Upper confidence limit
UF	Uncertainty factor
UTL	Upper tolerance limit

EXECUTIVE SUMMARY

This report evaluates the current and future risks to human health and the environment potentially associated with the sewage lagoons and lakes at Holloman Air Force Base (AFB), New Mexico. These include seven sewage lagoons (referred to as Ponds A through G), the ditch from Pond G to Lake Holloman, Lake Holloman, and Lake Stinky (see Figure ES-1).

The risk assessment has been prepared to support Sections 4.3 and 6.4 of the *Sewage Lagoons Closure Plan* (Radian and Foster Wheeler, 1995b). The information in this risk assessment addendum will be used to guide decisions regarding the closure of the sewage lagoons and lakes. Closure of the sewage lagoons is under the authority of the New Mexico Environment Department (NMED), New Mexico Hazardous Waste Management Regulations (HWMR-7), Part V, 40 CFR 264. The ditch and the two lakes are classified as solid waste management units (SWMUs) and will be monitored, if necessary, under the Hazardous and Solid Waste Amendments (HSWA) corrective action program. Currently, the ditch and Lake Holloman are designated as SWMU 139, and Lake Stinky is SWMU 140. Monitoring of these SWMUs, if necessary, will be performed in accordance with Holloman AFB's Resource Conservation and Recovery Act (RCRA) permit. When the new wastewater treatment system begins operating, the outfalls to Pond G and Lake Holloman will be regulated under a Clean Water Act NPDES permit.

A risk assessment for each of the sewage lagoons and lakes was prepared in December 1993 (Radian, 1993a) on the basis of data collected through 1993. Biological tissue samples were collected in 1993 (for birds, insects, fish, vegetation, benthic organisms, and salamanders), but the analytical results from these data were not available at the time the 1993 risk assessment report was prepared. In the absence of these data, some of the ecological and human health risks were estimated using uptake models which were based on soil/sediment and surface water data.

Several uncertainties were identified in the analytical data that were used to estimate risks for both human and ecological receptors in 1993. These uncertainties included 1) unconfirmed detections of heptachlor epoxide in sludge; 2) suspect detections of organic lead, at amounts greater than total lead concentrations, in surface water; and 3) estimated chemical concentrations in waterfowl.

To address the uncertainties with the soil, sludge, and surface water data, a sampling plan (one component of the *Project Plans*) was developed (Radian and Foster Wheeler, 1994). A geostatistical analysis was used for the sampling plan to determine the appropriate number and the optimum location of samples to be collected. An investigation that followed the sampling plan was implemented in 1994 and 1995 (referred to as the 1994 investigation in this addendum). In addition, analytical methodologies were reviewed and selected to address the analytical uncertainties that were identified in the 1993 risk assessment.

This risk assessment addendum uses the results of the 1994 investigation along with the supportable data from previous investigations. Tables ES-1 and ES-2 summarize the data that have been collected. Table ES-1 presents the data collected for surface water, sludge, sediment, and soil, and Table ES-2 presents the biological data collected.

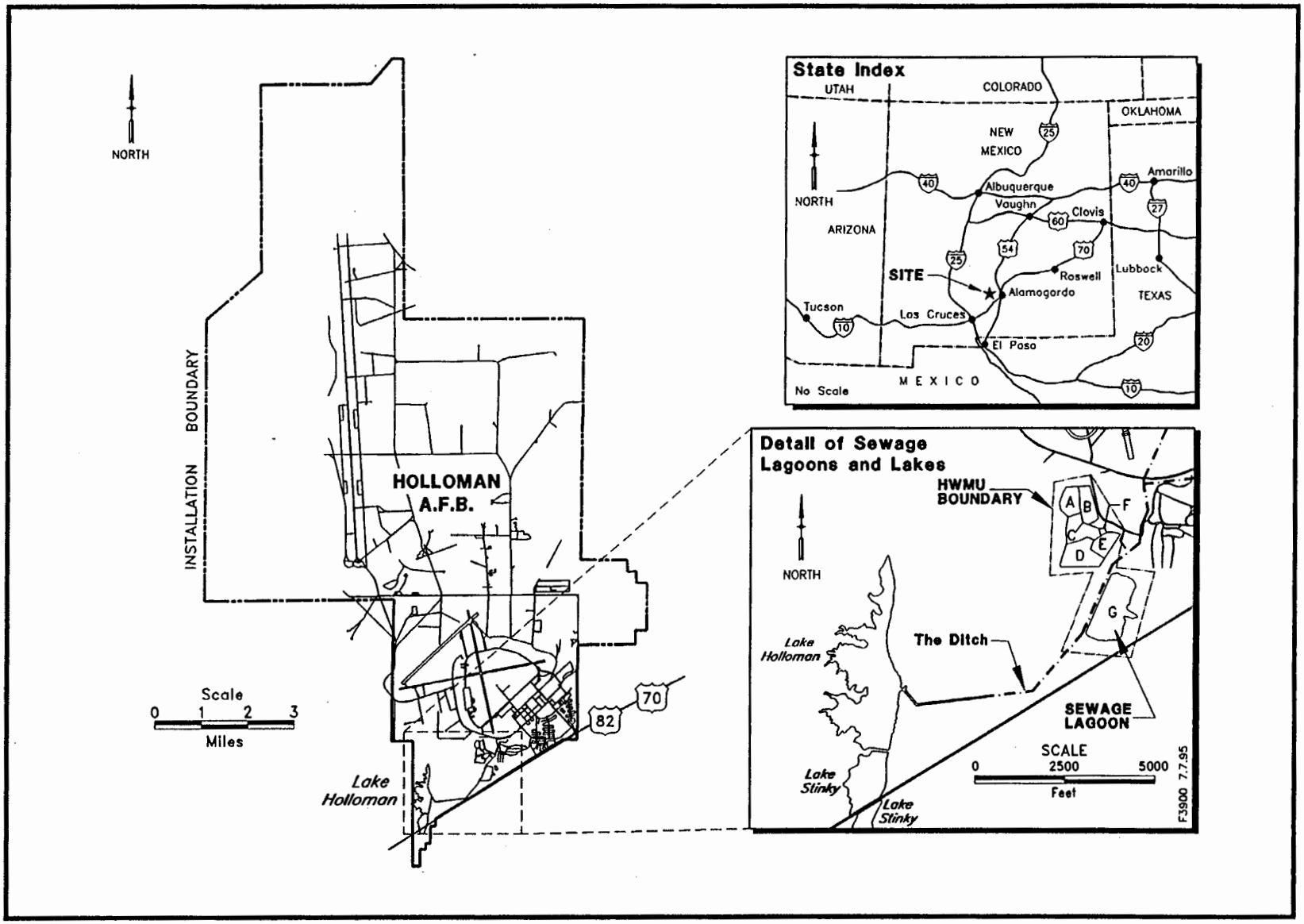


Figure ES-1. Location of the Sewage Lagoons at Holloman AFB

Table ES-1
Summary of Sewage Lagoons and Lakes Investigations

Medium	Year	Number of Sample Locations[a]										Analyses Performed
		Pond A	Pond B	Pond C	Pond D	Pond E	Pond F	Pond G	The Ditch	Lake Holloman	Lake Stinky	
Surface Water	1990	--	5	5	5	5	--	5	--	6	--	Semivolatiles, Organochlorine Pesticides, PCBs, and Metals
	1993	1	1	--	1	1	1	1	1	3	2	Organochlorine Pesticides
	1994/ 1995	--	--	3	3	3	--	9	3	14	--	Total, and Organic Lead
Sludge	1990	28[b]	37	6	--	--	--	--	--	--	--	Ponds A, B, and C - PCBs; Pond C - VOCs, Semivolatiles, Chlorinated Herbicides, Organochlorine Pesticides, and Metals
	1992	--	--	6	--	5	2	6	--	7	--	Appendix IX Constituents
	1994/ 1995	6	6	13[c]	16	16	--	19[d]	--	25	--	Ponds A and B - PCBs; Ponds A, B, and C - TCLP Metals, and Total and Reactive Sulfides; Ponds C, D, E, and G - Organochlorine Pesticides and Metals; Ponds C and G - Kepone
Sediment[e]	1993	1	--	--	--	1	--	--	--	--	--	Semivolatiles, Organochlorine Pesticides, and Metals
Soil	1990	8	6	6	--	--	--	--	--	--	--	Ponds A and B - Appendix IX Constituents; Pond C - VOCs, Semivolatiles, Chlorinated Herbicides, Organochlorine Pesticides, PCBs, and Metals
	1992	--	--	8	9	8	1	8	4	9	6	Appendix IX Constituents

[a] This table presents the number of sample locations and not the number of samples collected. At some locations multiple samples were collected.
[b] Originally 25 sludge samples were collected during the 1990 investigation. One sample had questionable data, and three additional samples were collected to verify or disprove the questionable data. Therefore, a total of 28 sludge samples were collected in 1990.
[c] Six samples were analyzed for TCLP metals and for sulfides; eight were analyzed for kepone.
[d] Twelve samples were analyzed for kepone.
[e] For purposes of characterizing the sewage lagoons, the sediment samples were considered as sludge samples. The sediment samples were near surface composite samples collected as part of the biota sampling to correlate constituents found in benthic organisms with the environment in which they lived.

PCBs = Polychlorinated biphenyls.
TCLP = Toxicity characteristic leaching procedure.
VOCs = Volatile organic compounds.
-- = Not sampled.

Table ES-2
Biological Samples Collected in 1993

Site	Biological Samples					
	Algae-Benthos	Insects-Invertebrates	Fish (*Gambusia*)	Salamander	Black-Necked Stilt	Mallard
Pond A	(a)	(b)				
Pond B						
Pond C	(a)	(b)			3	
Pond D						
Pond E	(a)					
Pond F						
Pond G	(a)	(b)	(c)	4		1
Ditch	(a)	(b)	(c)			
Lake Stinky	(a)	(b)				
Lake Holloman	(a)		(c)			

(a) Numerous microscopic algae and benthic organisms were present in each sample taken. It is not possible to quantify the exact number of organisms per sample.

(b) Various insects and invertebrates were collected from these locations. Sampling records estimate the number of organisms to be greater than 100 per sample.

(c) Fish samples (gambusia) at each impoundment consisted of greater than 40 fish per sample. These fish were approximately 1 inch long on average.

This addendum is not intended to replace the 1993 human health risk assessment report for the sewage lagoons and lakes (Radian, 1993a). Rather, its purpose is to update the 1993 report by recalculating the human health risk estimates using supplemental data collected between 1993 and 1995. However, the ecological risk assessment presented in this addendum does replace the 1993 version because biological data were available to calculate risks instead of relying on the modeled estimates that were used primarily in 1993. In this addendum, biota samples of benthic organisms and insects were used to model food uptake to higher trophic levels. These modeled values and the tissue samples of higher trophic level organisms were used to draw conclusions concerning ecological risk.

ES.1 Updated Human Health Risk Assessment

Site-specific risk assessments were updated for each component of the sewage lagoons and lakes. These site-specific risk assessments are presented in Section 4 and Appendix F of this addendum.

Four of the five exposure scenarios identified in the 1993 risk assessment were used to estimate the health risks associated with human exposure to site-related contaminants in this addendum. These scenarios, and the sites where they were evaluated, are presented below.

1) **Current On-site Worker (chronic and subchronic).** This exposure scenario was evaluated at Ponds A through G and the ditch. It addressed the exposure pathways associated with normal maintenance and operations at the sewage lagoons and the ditch.

2) **Current/Future Recreational—Hunters (chronic and subchronic).** This scenario was evaluated at Pond G, the ditch, and the lakes for both children and adults.

3) **Current/Future Trespasser—Teenager (subchronic).** This exposure scenario was evaluated only at Pond G because Ponds A through F are securely fenced, and Ponds A through F will be removed from active service in the future.

4) **Future Beef Consumer—Agricultural (chronic).** This exposure scenario was evaluated only at Lake Stinky. The other impoundments are within the confines of Holloman AFB where grazing of livestock is not permitted due to lack of water and because of conflicts with wildlife management objectives.

The Future On-site Worker scenario, evaluated at Ponds A through F in the 1993 risk assessment, was not evaluated in this addendum. Holloman AFB will ensure that OSHA health and safety requirements are implemented during closure activities, thereby precluding exposure to hazardous constituents.

ES.1.1 Site-Specific Risk Assessments

For each carcinogenic chemical of concern (COC), the incremental probability that an individual will develop cancer over a lifetime was estimated from projected intake levels and cancer potency factors. The USEPA Superfund site remediation goal set forth in the National Contingency Plan (NCP) established cancer risks of 1E-4 (1 in 10,000) to 1E-6 (1 in a million) as acceptable levels for known or suspected carcinogens. This range is designed to be protective of human health. For risk management decisions, a cancer risk of 1E-6 is considered a level of negligible risk and is the point of departure for determining remedial goals. As cancer risk estimates increase above 1E-6, so too does the level of concern for human health. Since these cancer risk estimates are generally upper-bound values, it is not likely that the "true risk," resulting from actual exposure, will be exceeded.

For noncarcinogenic COCs it is assumed there is an exposure level below which it is unlikely that adverse health effects will occur

(even for sensitive populations such as children). To characterize adverse noncarcinogenic health effects, comparisons were made between projected chemical intake and the toxicity of a given chemical. This relationship is referred to as the hazard quotient. For noncarcinogens then, there may be concern for potential noncancer effects when the hazard quotient (for individual chemicals) or hazard index (the sum of multiple hazard quotients) exceeds 1. In general, the greater the value above 1, the greater level of concern.

The updated cancer risk and noncancer hazard estimates are listed in Table ES-3 for each site at the sewage lagoons and lakes. As shown in this table, cancer risk estimates are well within the acceptable risk range of 1E-06 to 1E-04 established by the USEPA. Cancer risk estimates are greater than 1E-6, only in the reasonable maximum exposure case, at Ponds A, B, and G, the ditch, and both lakes. Cancer risk estimates are less than 1E-6 at Ponds C, D, E, and F in all exposure scenarios. The estimated noncancer hazard index at all sites, for all exposure scenarios, is less than 1.

Ponds A and B

The reasonable maximum cancer risk estimates at Ponds A and B are associated primarily with worker exposure to sludge. Although these estimates are 2E-6, they are well within the acceptable levels for cancer effects established by EPA. Additionally, potential health risks will be mitigated once these sewage lagoons are removed from active service.

Pond G, the Ditch, Lake Holloman, and Lake Stinky

The reasonable maximum cancer risk estimate is 6E-6, well within the acceptable risk range established by EPA for remediation goals, at each of these sites and is based on the ingestion of waterfowl in the adult recreational (hunter) scenario. The data used to estimate cancer risk for this scenario came from the breast tissue of one duck that was caught while flying over Pond G. Although this data set is limited, the risks estimated from it were also compared to the risks estimated in 1993 which were based on modeled duck tissue data. In general, the risk estimates were similar for the two data sets, actual tissue data and modeled tissue data, and indicated that PCBs were the primary COCs. Although PCBs are the primary cancer risk drivers for this scenario, the only known source of these PCBs will be eliminated once Ponds A through F are removed from active service.

Because both data sets resulted in cancer risk estimates greater than 1E-6, chemical concentrations in duck tissue, actual and modeled, were also compared to federal and/or state tolerance levels for chemical residues in foods. This comparison indicated that the residue levels in duck tissue (actual and modeled) were 5 to 500 times lower than the tolerance levels established for commonly eaten foods such as eggs, fish, and commercial poultry. Since hunters were assumed to ingest the breast meat of 3 to 6 ducks in one year, it is likely that the allowable tolerance levels for commonly eaten foods could also apply to the ducks caught at Holloman AFB. Therefore, these tolerance levels suggest that the chemical residues in ducks taken from the sewage lagoons and lakes are not of concern to hunters who ingest them.

ES.1.2 Updated Exposure Assumptions for the Human Health Risk Assessment

At the time the 1993 risk assessment was being prepared, the disposition of the sewage lagoons and lakes was uncertain and the extent of contamination at these sites had not been fully defined. Based on that understanding of the sewage lagoons and lakes, a number of assumptions were made when selecting the potential exposure scenarios for the sewage lagoons and lakes. These assumptions often erred in favor of selecting the most conservative

Table ES-3
Summary of Human Health Risk Assessment Results

Site	Human Health Risk Estimates					Comments
	Noncancer Hazard		Cancer Risk		Exposure Scenario Associated with Health Risks	
	AVG	RM	AVG	RM		
Pond A	< 1	< 1	< 1E-6	2E-6	Cancer risk estimates are based entirely on dermal contact with Aroclor-1254, in sludge, for the Current Onsite Worker Scenario.	Risks are well within EPA's acceptable levels established for carcinogens and will be mitigated once this sewage lagoon is removed from active service. Planned for closure.
Pond B	< 1	< 1	< 1E-6	2E-6	Cancer risk estimates are based entirely on dermal contact with sludge for the Current On-site Worker Scenario. Aroclor-1254 contributes 76% to the overall risk estimate, with 4,4'-DDE, benzo[a]pyrene, and chlordane accounting for 19% of this estimate.	Risks are well within EPA's acceptable levels established for carcinogens and will be mitigated once this sewage lagoon is removed from active service. Planned for closure.
Pond C	< 1	< 1	< 1E-6	< 1E-6	NA	Planned for closure.
Pond D	< 1	< 1	< 1E-6	< 1E-6	NA	Planned for closure.
Pond E	< 1	< 1	< 1E-6	< 1E-6	NA	Planned for closure.
Pond F	< 1	< 1	< 1E-6	< 1E-6	NA	Planned for closure.
Pond G The Ditch Lake Holloman Lake Stinky	< 1	< 1	< 1E-6	6E-6	Cancer risk estimates are based entirely on the ingestion of waterfowl hunted at these sites in the Adult Recreational Scenario. PCBs (36%), 4,4'-DDE (23%), oxychlordane (18%), dieldrin (15%), gamma-Chlordane (4%), and 4,4'-DDD (3%) are the primary risk drivers for this scenario.	The cancer risk estimates for Pond G, the Ditch, and the Lakes are identical and are discussed here collectively. These risk estimates are well within EPA's acceptable levels established for known or suspected carcinogens. The levels of pesticide and PCB residues in duck tissue used to estimate these risks are 5 to 500 times lower than federal and/or state tolerance levels for these residues in commonly eaten foods. As such, these allowable tolerance levels could also apply to the ducks hunted at Holloman AFB. See Section 4.9 of this addendum for a complete discussion of these tolerance levels.

AVG = Average Exposure Case
RM = Reasonable Maximum Exposure Case

exposure scenarios (i.e., scenarios that would be the most protective of human health). With greater understanding of the sewage lagoons and lakes, and the closure plan being developed for it, it is clear that the future onsite worker scenario should be eliminated, the future beef consumer scenario should be evaluated only at Lake Stinky, and the current/future recreational scenario will consider exposure to hunters only because the only risks identified in 1993 were for ingestion of waterfowl. The rationale for eliminating and updating these exposure scenarios in this addendum is provided below.

Future On-site Worker

While it is accurate to assume that the on-site worker scenario will exist when Ponds A through F are being removed from active service, it is inaccurate to assume that these workers will be exposed to site-related contaminants. During closure operations, all workers will be required to wear personal protective equipment (PPE) and will be properly decontaminated before leaving the work area. By implementing these and other OSHA health and safety measures, the potential health risks associated with this exposure scenario will be eliminated.

Future Beef Consumer

In the future beef consumer scenario, it was assumed that children and adults were exposed to chemicals in groundwater and lake water by consuming cattle that had ingested the groundwater or lake water directly, or had grazed on grasses irrigated by these waters. This exposure scenario is not likely to happen since the groundwater in this area of the Tularosa Basin is not potable due to the naturally high levels of total dissolved solids (TDS). The high salinity associated with this groundwater also precludes its use as a drinking water source for livestock. Moreover, the land surrounding the sewage lagoons and lakes is managed by Holloman AFB which does not allow cattle to graze north of Highway 70. However, in the event that grazing should occur south of Highway 70 (the southern portion of Lake Stinky) the future beef consumer scenario was evaluated at Lake Stinky.

Current/Future Recreational—Hunter

In the 1993 risk assessment, the current/future recreational scenario was evaluated for both birdwatchers and hunters at Pond G, the ditch, and the lakes. The risk estimates generated in 1993 for this scenario indicated that ingestion of waterfowl, caught at these sites and ingested by hunters, was the primary pathway of exposure for both children and adults. Because the risks associated with bird watching were overshadowed by the risks estimates for hunters (i.e., from ingesting waterfowl), exposure to birdwatchers was eliminated in the recreational scenario for this addendum.

Additionally, the number of ducks taken by hunters (and ingested) per year was updated for this exposure scenario. In the 1993 risk assessment, the ingestion rates for hunters, the number of ducks eaten per year, were based on data from the Colorado Division of Wildlife for the average number of ducks harvested by hunters per year.

In this addendum, more appropriate ingestion rates were adopted for duck hunters in the State of New Mexico. These ingestion rates are based on the 1994 statewide average number of ducks harvested per year by active adult hunters (FWS, 1995).

A detailed discussion of these ingestion rates is presented in Section 4.1.1 of this addendum.

ES.2 Ecological Risk Assessment

Ponds A through F were not evaluated in the new ecological risk assessment (ERA) because they are planned to be closed and will no longer

serve as a habitat for aquatic wildlife. Specific ERAs for Pond G, the ditch, Lake Holloman, and Lake Stinky as well as an overall evaluation of the sewage lagoons and lakes is presented in Sections 5 and 6 of the risk assessment addendum.

The potential for adverse ecological effects was evaluated using a combination of basic uptake modeling from lower trophic levels to higher trophic levels, and actual biological tissue sample data taken from the sewage lagoons and lakes. The potential for adverse effects was estimated by comparing chemical concentrations in the media at these sites with safe concentrations determined from literature studies. Adverse effects were defined as attributes that may threaten the survivorship and productivity of the aquatic food chain.

DDT and its derivatives, DDD and DDE, were the only constituents found to have the potential to cause adverse effects in the sewage lagoons and lakes. Table ES-4 provides a summary of the species and locations where DDT and its derivatives could potentially result in an adverse effect. These constituents are no longer used at the Base and should be decreasing to a level that poses no risk to the aquatic ecosystem. The concentrations of DDT in the sewage lagoons decreased by an order of magnitude between 1992 and 1994, as is documented in the *Site Characterization Report* (Radian and Foster Wheeler, 1995d). It is unlikely that the survivorship and productivity of the aquatic food chains are threatened.

Table ES-4
Summary of Ecological Risk Assessment Results, Chemicals that Have Potential to Cause Adverse Effects to Ecology Surrounding the Sewage Lagoons and Lakes

Analyte	Pond G (Fish)	The Ditch (Fish)	Black-necked Stilt [a] (Body Burden)	Mallard [a] (Body Burden)
DDD	X	X		
DDE	X	X	X	X
DDT		X		

[a] Stilt and mallard EQs are not based on impoundment-specific samples but are intended to represent waterfowl present at the lakes and lagoons. None of the impoundment-specific EQs for waterfowl modeled from the food source data exceeded 1.0.

Section 1
INTRODUCTION AND BACKGROUND

In support of Sections 4.3 and 6.4 of the Sewage Lagoons Closure Plan (Radian and Foster Wheeler, 1995b), the information in this risk assessment addendum will be used to guide decisions regarding the closure of Holloman Air Force Base's (AFB's) sewage lagoons. This addendum identifies the chemicals of concern that pose potential human health or environmental risk and provides a quantitative measure of these potential risks; however, it does not provide cleanup standards for reducing these risks. The results of this risk assessment addendum may be used in the corrective measures study (CMS) to develop appropriate cleanup standards based on expected future land use.

The sewage lagoons and lakes system is composed of seven sewage lagoons (referred to as Ponds A through G), Lake Holloman, the ditch between Pond G and Lake Holloman, and Lake Stinky (see Figure 1-1). Closure of the sewage lagoons is under the authority of the New Mexico Environment Department (NMED), New Mexico Hazardous Waste Management Regulations (HWMR-7), Part V, 40 CFR 264. NMED has classified the sewage lagoons as hazardous waste management units (HWMUs) and as such they must be closed as Resource Conservation and Recovery Act (RCRA) hazardous waste units. The ditch and the two lakes are classified as solid waste management units (SWMUs) and will be monitored, if necessary, under the Hazardous and Solid Waste Amendments (HSWA). Currently, the ditch and Lake Holloman are designated as SWMU 139 and Lake Stinky is SWMU 140. Monitoring of these SWMUs, if necessary, will be performed in accordance with Holloman AFB's RCRA permit. Because of the interrelation of the sewage lagoons and lakes in respect to the ecology and the potential for human exposure, this addendum evaluates both the sewage lagoons and lakes. The history of the sewage lagoons and lakes is fully documented in the *Project Assessment Report* (Radian and Foster Wheeler, 1995a).

A risk assessment for each of the sewage lagoons and lakes on the basis of data collected through 1993 was presented to NMED in December 1993 (Radian, 1993a). Biological tissue samples were collected in 1993 (for birds, insects, fish, vegetation, benthic organisms, and salamanders), but the analytical results from these samples were not available at the time the 1993 risk assessment report was prepared. In the absence of these data, some of the ecological and human health risks were estimated with basic uptake models using soil/sediment and surface water data only. Several uncertainties were identified in the analytical data used to estimate risks for both human and ecological receptors. These uncertainties included 1) unconfirmed detections of heptachlor epoxide in the sludge; and 2) suspect detections of organic lead at concentrations greater than total lead in the surface water.

To address the uncertainties with the soil, sludge, and surface water data, a sampling plan (one component of the *Project Plans*) was developed (Radian and Foster Wheeler, 1994). Geostatistical analysis was used for the sampling plan to determine the appropriate number and the optimum location of samples to be collected. An investigation that followed the sampling plan was implemented in 1994 and 1995 (referred to as the 1994 investigation in this addendum). In addition, analytical methodologies were reviewed and selected to address the analytical uncertainties that were identified in the 1993 risk assessment.

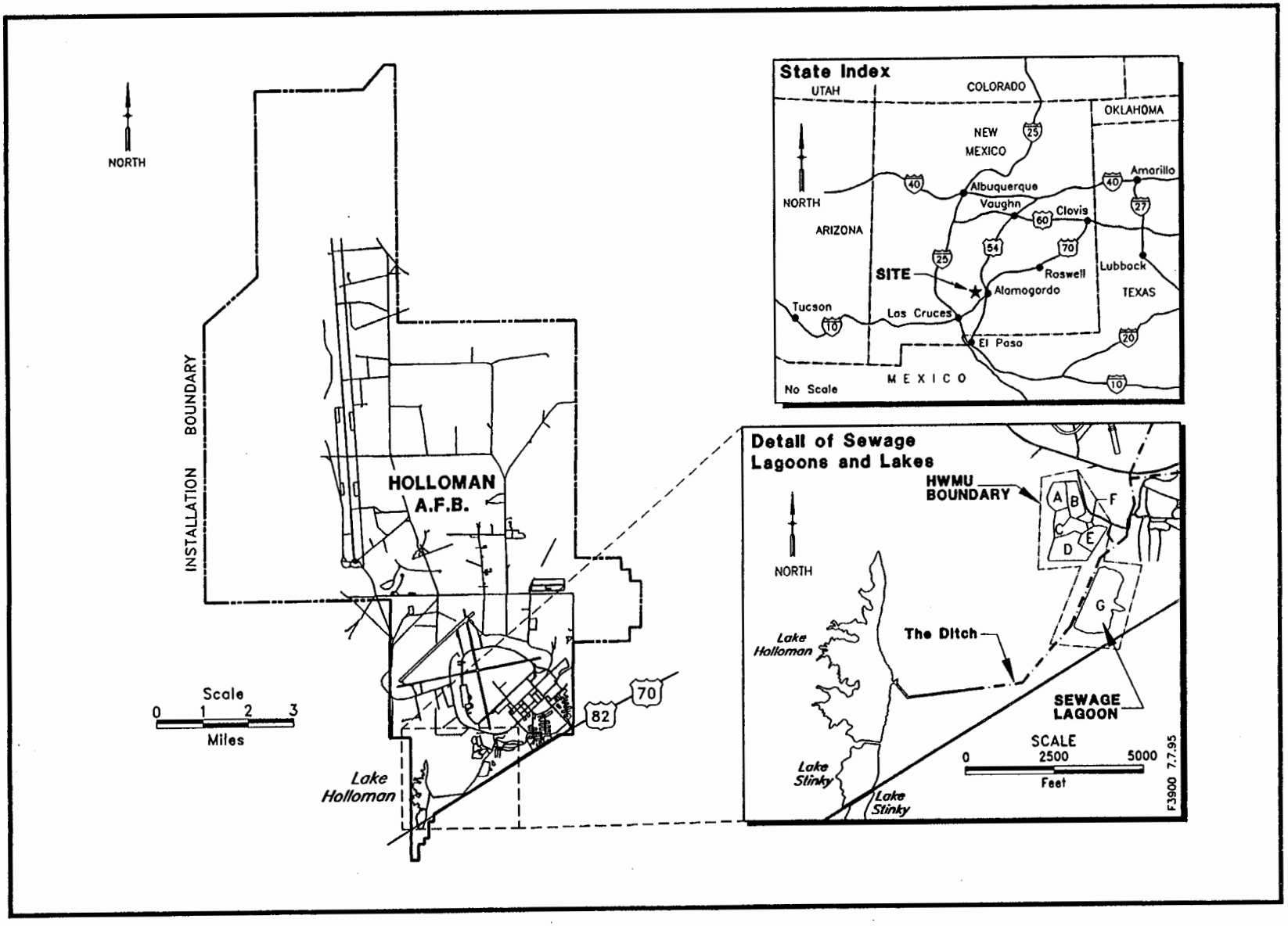


Figure 1-1. Location of the Sewage Lagoons at Holloman AFB

This risk assessment addendum uses the results of the 1994 investigation along with the supportable data from previous investigations. Tables 1-1 and 1-2 summarize the data. Table 1-1 lists the data for surface water, sludge, sediment, and soil, and Table 1-2 lists the biological data collected in 1993. This addendum is not intended to replace the 1993 human health risk assessment report for the sewage lagoons and lakes (Radian, 1993a). Rather, its purpose is to update the 1993 report by recalculating the human health risk estimates using supplemental data collected between 1993 and 1995. However, the ecological risk assessment presented in this document does replace the 1993 version because biological data were available to use instead of the modeled estimates in 1993.

1.1 Human Health Risk Evaluation Criteria

For each carcinogenic chemical of concern (COC), the incremental probability that an individual will develop cancer over a lifetime was estimated from projected intake levels and cancer potency factors. The USEPA Superfund site remediation goal set forth in the National Contingency Plan (NCP) establishes cancer risks of 1E-4 (1 in 10,000) to 1E-6 (1 in a million) as acceptable levels for known or suspected carcinogens. This range is designed to be protective of human health. For risk management decisions, a cancer risk of 1E-6 is considered a level of negligible risk and is a point of departure for determining remedial goals. As cancer risk estimates increase above 1E-6, so too does the level of concern for human health. Since these cancer risk estimates are generally upper-bound values, it is not likely that the "true risk," resulting from actual exposure, will be exceeded.

For noncarcinogenic COCs it is assumed there is an exposure level below which it is unlikely that adverse health effects will occur (even for sensitive populations such as children). To characterize adverse noncarcinogenic health effects, comparisons were made between projected chemical intake and the toxicity of a given chemical. This relationship is referred to as the hazard quotient. For noncarcinogens then, there may be concern for potential noncancer effects when the hazard quotient (for individual chemicals) or hazard index (the sum of multiple hazard quotients) exceeds 1. In general, the greater the value above 1, the greater level of concern.

These criteria were used to evaluate the potential health risks for the sewage lagoons and lakes in the 1993 risk assessment and for this updated risk assessment.

1.2 1993 Human Health Risk Assessment

The 1993 risk assessment evaluated cancer risks and noncancer hazards at Holloman AFB under two conditions. The first condition, a baseline risk assessment (BRA), assumed that homes would be built on top of the sewage lagoons (Ponds A through G) with little or no remedial activities. In addition to the exposure pathways considered in this scenario, it was also assumed that groundwater would be used as a potable water source. This BRA is discussed in Appendix L of the 1993 risk assessment report (Radian, 1993a).

Under the second condition, each sewage lagoon, each lake, and the drainage ditch between Pond G and Lake Holloman, was evaluated separately in a site-specific risk assessment. Unlike the BRA, the site-specific assessments did not evaluate the residential exposure scenarios. The site-specific risk assessments are discussed in detail in Sections 2 through 12, Volume I, of the 1993 risk assessment report (Radian, 1993a).

1.2.1 1993 Baseline Risk Assessment

The BRA was initially performed to determine if health risks would exist under very conservative assumptions (i.e., a residential setting without prior site cleanup). If human health risk

Table 1-1
Summary of Sewage Lagoons and Lakes Investigations

Medium	Year	Number of Sample Locations[a]										Analyses Performed
		Pond A	Pond B	Pond C	Pond D	Pond E	Pond F	Pond G	The Ditch	Lake Holloman	Lake Stinky	
Surface Water	1990	--	5	5	5	5	--	5	--	6	--	Semivolatiles, Organochlorine Pesticides, PCBs, and Metals
	1993	1	1	--	1	1	1	1	1	3	2	Organochlorine Pesticides
	1994/ 1995	--	--	3	3	3	--	9	3	14	--	Total, and Organic Lead
Sludge	1990	28[b]	37	6	--	--	--	--	--	--	--	Ponds A, B, and C - PCBs; Pond C - VOCs, Semivolatiles, Chlorinated Herbicides, Organochlorine Pesticides, and Metals
	1992	--	--	6	--	5	2	6	--	7	--	Appendix IX Constituents
	1994/ 1995	6	6	13[c]	16	16	--	19[d]	--	25	--	Ponds A and B - PCBs; Ponds A, B, and C - TCLP Metals, and Total and Reactive Sulfides; Ponds C, D, E, and G - Organochlorine Pesticides and Metals; Ponds C and G - Kepone
Sediment[e]	1993	1	--	--	--	1	--	--	--	--	--	Semivolatiles, Organochlorine Pesticides, and Metals
Soil	1990	8	6	6	--	--	--	--	--	--	--	Ponds A and B - Appendix IX Constituents; Pond C - VOCs, Semivolatiles, Chlorinated Herbicides, Organochlorine Pesticides, PCBs, and Metals
	1992	--	--	8	9	8	1	8	4	9	6	Appendix IX Constituents

[a] This table presents the number of sample locations and not the number of samples collected. At some locations multiple samples were collected.
[b] Originally 25 sludge samples were collected during the 1990 investigation. One sample had questionable data, and three additional samples were collected to verify or disprove the questionable data. Therefore, a total of 28 sludge samples were collected in 1990.
[c] Six samples were analyzed for TCLP metals and for sulfides; eight were analyzed for kepone.
[d] Twelve samples were analyzed for kepone.
[e] For purposes of characterizing the sewage lagoons, the sediment samples were considered as sludge samples in the 1993 data set. The sediment samples were near surface composite samples collected as part of the biota sampling to correlate constituents found in benthic organisms with the environment in which they lived.

PCBs = Polychlorinated biphenyls.
TCLP = Toxicity characteristic leaching procedure.
VOCs = Volatile organic compounds.
-- = Not sampled.

Table 1-2
Biological Samples Collected in 1993

Biological Samples						
Site	**Algae-Benthos**	**Insects-Invertebrates**	**Fish (*Gambusia*)**	**Salamander**	**Black-Necked Stilt**	**Mallard**
Pond A	(a)	(b)				
Pond B						
Pond C	(a)	(b)			3	
Pond D						
Pond E	(a)					
Pond F						
Pond G	(a)	(b)	(c)	4		1
Ditch	(a)	(b)	(c)			
Lake Stinky	(a)	(b)				
Lake Holloman	(a)		(c)			

(a) Numerous microscopic algae and benthic organisms were present in each sample taken. It is not possible to quantify the exact number of organisms per sample.

(b) Various insects and invertebrates were collected from these locations. Sampling records estimate the number of organisms to be greater than 100 per sample.

(c) Fish samples at each impoundment consisted of greater than 40 fish per sample. These fish were approximately 1 inch long on average.

estimates from the BRA were negligible, further evaluation of the sewage lagoons and lakes would not be required. Results of the BRA indicated cancer risk estimates exceeded 1E-6 for all the sewage lagoons at Holloman AFB. At Ponds A, B, and E, cancer risk estimates were greater than 1E-4. At Ponds C, D, F, and G, cancer risk estimates were greater than 1E-6 but less than 1 E-4. Since cancer risk estimates were not negligible in the BRA, further evaluation of the sewage lagoons and lakes was required (i.e., performing site-specific risk assessments).

It is assumed that the residential conditions of the BRA would still show risk, so for this addendum the BRA risks were not reevaluated. The exclusion of the BRA is discussed in Section 1.4 of this addendum. A detailed summary of the risk estimates for the BRA is provided in Appendix L of the 1993 risk assessment report (Radian, 1993a).

1.2.2 1993 Site-Specific Risk Assessments

Individual site-specific human health risk assessments were performed for all sewage lagoons, the ditch, and the lakes. The purpose of these risk assessments was to adequately characterize the potential risks associated with each site on the basis of the exposure conditions thought to be the most likely to occur. The exposure scenarios evaluated for these risk assessments are described in Section 4 and Appendix F of this addendum. The 1993 risk estimates for each sewage lagoon, the ditch, and the lakes are presented in Appendix F of this addendum.

Cancer risks exceeded 1E-6 for at least one scenario at all sites except at Ponds C, D, and F, and noncancer hazard estimates exceeded 1 for at least one scenario at all sites except Ponds D and F. The health risk estimates for many of these sites were based primarily on the suspect analytes heptachlor epoxide and/or organic lead. However, the actual presence of both analytes was questionable, which added a great deal of uncertainty to the health risk estimates. The uncertainty associated with these suspect chemicals is discussed in Section 1.2.3 of this addendum.

1.2.3 Resolution of Uncertainties Associated with the 1993 Risk Assessment

Several uncertainties were identified in the analytical data that were used to estimate risks for both human and ecological receptors. These uncertainties included 1) unconfirmed detections of heptachlor epoxide in sludge, and 2) suspect detections of organic lead above total lead concentrations in surface water.

Heptachlor Epoxide

In the 1993 risk assessment, heptachlor epoxide was the primary risk driver at Ponds A and E and contributed significantly to cancer risks at the ditch and Lake Stinky. The risk at each of these sites was based on a single sample in which heptachlor epoxide was tentatively identified in analysis by EPA Method 8080 (an unconfirmed hit). In this method, samples are analyzed on two columns containing different packing materials, which cause each target analyte to be detected at different retention times. Compounds which coelute with the target compound on one column will not coelute with that same target compound on the second column. When an analyte is detected on both columns, its presence is considered confirmed. However, if the analyte is detected on one column, but not on the other, the detection is likely to be a false positive. When samples were analyzed by EPA Method 8080, heptachlor epoxide was detected only on the first column and was never confirmed on the second column. In the absence of second column confirmation, the validity of these data was questionable. It was determined that the presence of heptachlor epoxide could not be confirmed since EPA Method 8080 could not clearly resolve the heptachlor epoxide detections.

To confirm or disprove the presence of heptachlor epoxide at these sites, additional sampling was performed during a subsequent investigation in 1994. Samples were analyzed again using EPA Method 8080, but any samples that indicated heptachlor epoxide on one column only were then analyzed by gas chromatography/ mass spectroscopy (GC/MS) using EPA Method 8270. For 17 samples of 105 collected, heptachlor epoxide was reported on the first column but not on the second using the GC methodology. Fourteen (14) of these samples with unconfirmed detections (i.e., all samples with unconfirmed detections of 10 μg/kg or higher) were analyzed by GC/MS, and the results of this analysis indicated that heptachlor epoxide was not present in the sewage lagoons, the ditch, or the lakes. Since heptachlor epoxide was not detected at these sites, and GC/MS is a much more reliable analytical tool than GC alone, heptachlor epoxide is no longer considered a chemical of potential concern (COPC) at these sites. Therefore, heptachlor epoxide does not contribute to cancer or noncancer risks at Pond A, Pond E, the ditch, or Lake Stinky.

Organic Lead

In the 1993 risk assessment, organic lead in surface water was a noncancer risk driver at Pond G and Lake Holloman. The presence of organic lead in these surface water samples was also in question. A great deal of uncertainty surrounded this analyte for the following reasons:

1) There is no indication that organic lead is related to past waste disposal activities or current practices for sewage treatment;

2) Sample concentrations for organic lead exceeded those for total lead; and

3) Analytical results for equipment rinsate samples also indicated similar concentrations of organic lead.

To address the uncertainties surrounding these results, additional surface water samples were collected from Ponds C, D, E, and G, the ditch, and Lake Holloman in 1994 and analyzed by a method that allowed a lower detection limit than was previously used in 1993. The analytical results of these samples indicated that organic lead was not detected at these sites. This sampling event was conducted to confirm the presence or absence of organic lead in the sewage lagoons and lakes. Since organic lead was not detected during the 1994 sampling event, the risks previously associated with this analyte are no longer considered valid.

1.3 1993 Ecological Risk Assessment

The 1993 ecological risk assessment evaluated risk at each sewage lagoon, the ditch and the lakes individually. The indicator species, which were chosen to be representative of other species in the area, included fish and mallard at all of the sites; killdeer at Ponds A, B, and E, and the ditch; and mergansers at Pond G, Lake Holloman, and the ditch.

Risk was estimated by calculating an ecological hazard quotient (EQ), which is the ratio of the observed or estimated contaminant concentrations to the safe benchmark concentration for a specific species. Ecological hazard indices were then calculated for the birds by summing the EQs for each indicator species at each impoundment. The ecological hazard index was used in estimating the potential for adverse effects on the indicator species within the sewage lagoons and lakes. The hazard index was not calculated for the fish, because it was assumed that the fish would spend their entire life in a single impoundment as opposed to the birds which are likely to use all sewage lagoons and lakes for food and cover. Analysis of the biological samples had not been completed at the time of the 1993 report; thus only a fraction of the data for benthic organisms and invertebrates was used. Uptake

from surface water and sediment/sludge was used to model the remaining pathways.

1.3.1 Summary of 1993 Ecological Risk Estimates

Ponds A through D

The 1993 ecological risk assessment at Ponds A, B, C, and D indicated that birds (mallards and killdeer) subsisting on the sewage lagoons and lakes are not likely to be at risk. Although fish were not found in any of these sewage lagoons, the EQ showed that risk to fish was theoretically possible. The fish results were based entirely on water contaminant concentrations. All of these sewage lagoons are planned for closure and will no longer be wet habitat for wildlife or contribute risk to the ecosystem.

Pond E

The 1993 ecological risk assessment at Pond E indicated that mallards were not likely to be at risk. For killdeer living near Pond E, however, adverse effects were possible on the basis of the calculated EQ. Although fish were not found in Pond E, adverse effects are theoretically possible solely on the basis of contaminant concentrations in surface water. Pond E is planned to be closed and will no longer be a wildlife habitat or contribute risk to the ecosystem.

Pond F and the ditch

The 1993 ecological risk assessment for Pond F and the ditch indicated that no adverse effects were expected for any of the indicator species or the species they represent. Pond F is planned to be closed.

Pond G

The 1993 ecological risk assessment (ERA) concluded that bird species using Pond G were not likely to be at risk. The EQs for both mallards and mergansers indicated that risk to these species was insignificant. The EQs for fish indicated that adverse effects may be possible; however, it was noted that Pond G has a fish population of *Gambusia* which were introduced to control the mosquito population. Further evaluation, based upon analysis of fish tissue samples, was recommended.

Lake Holloman

Mallards, mergansers and fish were evaluated in the 1993 ecological risk assessment. Acceptable EQs were found for mallards and mergansers under average conditions. The reasonable maximum EQ was slightly elevated for the mallards. EQ values for fish were also slightly elevated. However, on the basis of the large population of fish (*Gambusia*) in Lake Holloman, it was concluded that the EQs were unlikely to represent significant risk.

Lake Stinky

The 1993 ecological risk assessment for Lake Stinky evaluated risks to fish and mallards. EQ values were in the acceptable range for both species. The reasonable maximum EQ for mallards was slightly elevated, but it was concluded that this was unlikely to represent significant risk. Fish EQs were below the acceptable limit for both the average and the reasonable maximum scenarios. Additionally, Lake Stinky is dry most of the time and does not support populations of fish and mallards on a continuous basis.

The 1993 ecological risk assessment concluded that additional biological sampling was needed to validate the modeling results and determine which chemicals, if any, were being bioaccumulated up the food chain. Additional sampling and evaluation were required to make recommendations concerning the future of the individual impoundments and the system as a whole. Overall, the 1993 ecological risk assessment concluded that mergansers were not likely to be at risk, whereas the potential for risk existed for mallards, killdeer, and fish.

1.3.2 Uncertainties Associated with the 1993 Ecological Risk Assessment

Uncertainty was noted in the 1993 ERA for sampling and analysis, the toxicity assessment, and the exposure assessment. Sampling uncertainty resulted from difficulties in extracting benthic organisms from the substrate at several locations. It was also noted that, in general, obtaining a representative biota sample is difficult.

The quality assurance/quality control (QA/QC) analysis noted several data limitations that resulted in adjusting concentrations that may have been biased low. Results that may have been biased high were not adjusted, possibly causing risks to be overestimated for 4,4'-DDD, 4,4'-DDE, bis(2-ethylhexyl)phthalate, dioxins, and furans. Uncertainty in the toxicity assessment was due to the absence of the most sensitive toxicity endpoints for some of the chemicals in some species. Toxicity data had to be extrapolated between species causing additional uncertainty.

Uncertainty in the exposure assessment resulted from the assumptions used to determine the intake rates and ingestion fractions. In some cases, surrogate values had to be used, and in other cases values such as the exposure duration had to be estimated.

Because bioaccumulation factors were not used in the food uptake model for birds, the possibility exists that risks to birds were underestimated for certain chemicals in the model. It was concluded that including these factors would have grossly overestimated risk. Tissue samples were expected to validate the results of the model.

1.4 Human Health Risk Assessment Update

As a general rule, the assumptions used in this addendum reflect the same methodology and rationale used in the 1993 risk assessment. The exceptions to these assumptions are listed below.

1) **Toxicity values for PCBs have been updated.** In the 1993 risk assessment report (Radian 1993a), cancer and noncancer toxicity values for PCBs were based on their relative potency compared to that of 2,3,7,8-TCDD. Toxicity values for PCBs were calculated by multiplying the chemical-specific toxicity equivalency factor (TEF) by the toxicity value of 2,3,7,8-TCDD. The TEF values used in this calculation were obtained from EPA (EPA, 1989a).

In this addendum, toxicity values for PCBs have been updated to reflect EPA's current position on PCB potency in humans. Although EPA still considers certain PCBs to have dioxin-like properties, they have not assigned new TEFs for these PCBs. EPA further states, "In the case of PCBs, research on the applicability of the TEF approach is ongoing but there is not yet any formal EPA policy" (EPA, 1994a). Currently the EPA provides cancer and noncancer toxicity values for PCBs through the Integrated Risk Information System (IRIS) (EPA, 1995a). IRIS lists a cancer potency value for "PCBs" in general, and non-cancer values for certain PCB mixtures (also called aroclors). For cancer risk estimates, all PCBs were evaluated using the same (and the only) toxicity value presented in IRIS. Likewise, noncancer hazards for all PCBs were estimated using the most health protective value of any aroclor mixture listed in IRIS.

2) **The 1993 BRA is not updated.** The baseline risk assessment (BRA), one component of the 1993 risk assessment report (Radian 1993a), does not accurately reflect the human health risk associated with the sewage lagoons. The BRA assumed that remediation of the sewage lagoons (Ponds A through G) would not occur and that homes would be built directly on top of these sites. Because these exposure conditions are very conservative, the BRA can be viewed as a screening tool to determine if health risks are

present at a site. Moreover, it is unlikely that homes will ever be built on the sewage lagoons, because:

- The soils at these sites are unsuitable for constructing buildings;
- The groundwater beneath Holloman AFB is unfit for human consumption and is too high in total dissolved solids (TDS > 10,000 mg/L basewide) for use in backyard gardens;
- This land is likely to become open space or be used for industrial purposes;
- The sewage lagoons are located at the end of the runway clear zone;
- The installation of sewage lines and a potable water source to support these homes would be too costly for prospective developers; and
- The area is inundated with wetlands and floodplains, making the area unsuitable for residential building.

On the basis of these considerations, the residential land use assumption is not included as a component of the updated risk assessment for the sewage lagoons and lakes.

3) **Actual duck tissue data are used to estimate health risks to hunters.** In the 1993 report, health risks for hunters that ingested waterfowl caught from the sewage lagoons and lakes were estimated using data from a model that predicted chemical levels in duck tissue. Modeled tissue data were used in 1993 because actual tissue samples were not available. Subsequent to the 1993 report, several attempts were made to collect actual duck tissue samples from the sewage lagoons and lakes. However, only one duck was collected, while flying over Pond G, to assess risks for this exposure scenario.

In this addendum, the data used to estimate health risks for hunters came from the breast tissue of the one duck that was caught while flying over Pond G. Because this data set is limited, the risks estimated from the breast tissue of this duck will also be compared to the risks estimated in 1993 (which were based on modeled duck tissue data). This comparison will be made in order to correlate the COCs for each data set and their resultant health risk estimates.

4) **Arsenic removed as a COPC at the lakes.** In the 1993 risk assessment, cancer risks from arsenic exceeded 1E-6 at both lakes based on the inhalation of wind-blown dust from Lake Stinky. In the summer months, part of Lake Stinky dries up. When this occurs it was assumed that COPCs in lake bed soils and sediments, once covered by water, could become suspended in the air and be dispersed over both Lakes Holloman and Stinky. Arsenic was detected only in the surface soil at Lake Stinky. The mean and reasonable maximum exposure concentrations of arsenic in these soils were 2.7 and 3.4 mg/kg, respectively.

Results from the 1993 risk assessment indicated that the estimated cancer risk from inhaled soil-bound arsenic exceeded 1E-6. However, the site-background upper tolerance limit (UTL) for this analyte is reported as 6.88 mg/kg in the 1993 *Base-Wide Background Study* (Radian, 1993b). Since arsenic has been detected in the soil at Lake Stinky at concentrations below the background UTL, it is unlikely that the cancer risks estimated for the lakes could be distinguished from those that would occur due to the natural levels of arsenic. On the basis of this rationale, arsenic has been removed as a COPC at both lakes for all soil related pathways.

5) **Heptachlor epoxide and organic lead are no longer COPCs.** As stated in Section 1.1.2 of this addendum, these two analytes are not COPCs at any of the sewage lagoons, the ditch, or the lakes. Because there are no risks associated

with these analytes, they are no longer considered in this addendum.

6) **The Future On-site Worker scenario is not evaluated.** This exposure scenario was evaluated at Ponds A through F in the 1993 risk assessment to account for chemical exposure to workers during closure activities at these sewage lagoons. However, protection of workers during remediation or closure activities associated with Ponds A through F will be accomplished using standard OSHA health and safety requirements.

7) **The Future Agricultural (Beef Consumer) scenario is evaluated only at Lake Stinky.** Although the Future Beef Consumer scenario was evaluated at Ponds A through G and Lakes Holloman and Stinky in the 1993 risk assessment, this scenario is only evaluated at Lake Stinky in this addendum. Currently, cattle are not permitted to graze in the area of the sewage lagoons and lakes with the possible exception of the lower portion of Lake Stinky (south of highway 70). Because current grazing restrictions are likely to remain the same in the future, Lake Stinky is the only viable source of chemical uptake for cattle.

8) **Current/Future Recreational scenario is updated to evaluate hunters only.** In the 1993 risk assessment, the current/future recreational scenario was evaluated for both birdwatchers and hunters at Pond G, the ditch, and the lakes. The risk estimates generated in 1993 for this scenario indicated that ingestion of waterfowl, caught at these sites and ingested by hunters, was the primary pathway of exposure for both children and adults. Because the risks associated with bird watching were overshadowed by the risks estimates for hunters (i.e., from ingesting waterfowl), exposure to birdwatchers was eliminated in the recreational scenario for this addendum.

Additionally, the number of ducks taken by hunters (and ingested) per year was updated for this exposure scenario. In the 1993 risk assessment, the ingestion rates for hunters, the number of ducks eaten per year, were based on data from the Colorado Division of Wildlife for the average number of ducks harvested by hunters per year.

In this addendum, more appropriate ingestion rates were adopted for duck hunters in the State of New Mexico. These ingestion rates are based on the 1994 statewide average number of ducks harvested per year by active adult hunters (FWS, 1995).

A detailed discussion of these ingestion rates is presented in Section 4.1.1 of this addendum.

1.5 Ecological Risk Assessment Update

The assumptions used in this addendum to estimate ecological risks reflect a similar methodology and rationale used in the 1993 risk assessment. However, ecological risks were completely reevaluated using biological data that were not available for the 1993 ERA. The assumptions made for the ERA in this addendum are listed below.

1) Tissue samples from several different species collected around the sewage lagoons and lakes have been analyzed since the 1993 risk assessment report. Benthic organisms and insects were used to model food uptake to higher trophic levels. These modeled values and the tissue samples from higher trophic level organisms were used to draw conclusions concerning ecological risk.

2) The equations used to model concentrations in the indicator species have been modified in several ways. The most significant modification is the inclusion of uptake from sediment in several of

the models. This modification was included to provide a more realistic estimate of the contaminant concentrations in the models and address concerns regarding this pathway. Other modifications include adjustments to the parameters used in the models such as body weight, fractions ingested of various food sources, and the amount of time spent at each body of water. These adjustments were modified to reflect the most current data and are presented in Section 5.

3) The new wastewater treatment plant will continue to supply water to Pond G, the ditch, Lake Holloman and Lake Stinky, and continue supporting the habitat similar to current conditions. Only these areas were evaluated in the ecological risk assessment. Ponds A through F will not receive water and therefore will not be able to continue to provide the same type of habitat as currently exists. Because the sewage lagoons will likely be closed in place, the wastes will not be left exposed to nature. By focusing on the areas that will remain open, a more accurate portrayal of the effects to the habitat is possible.

(4) Because ecological risk assessment is a rapidly evolving field, there have been many new studies and papers published since the 1993 risk assessment report. For this reason, the measurement endpoints used in this addendum have been updated to reflect the most current available literature, allowing for more realistic and accurate ecological quotients.

5) Ecological quotients were not summed for the indicator species in this assessment because measurement endpoints were based on population effects that can be caused by a number of different mechanisms. Specific chemicals that contributed to potential adverse effects were addressed individually for each indicator species.

Section 2
DATA EVALUATION FOR THE HUMAN HEALTH RISK ASSESSMENT

This section summarizes the data evaluation process used to determine the human health chemicals of potential concern (COPCs) for the risk assessment addendum. Additional sludge, soil, and surface water samples were collected from the sewage lagoons and lakes during the 1994 investigation (samples were collected in 1994 and 1995 under this same investigation) and reported in the *Site Characterization Report* (SCR) (Radian and Foster Wheeler, 1995d). The objective of the data evaluation process was to use the data from the 1994 investigation to augment the existing data sets (used in the 1993 risk assessment) and confirm the validity of outlying data points. A complete discussion of the sludge, soil, and surface water data collected during the 1994 investigation is contained in the SCR. For a discussion of the process used to determine the 1993 COPCs, please refer to the 1993 risk assessment report (Radian, 1993a). The only biological data collected for estimating human health risks in this addendum was the breast tissue from a single duck that was shot at Pond G in 1993.

Table 2-1 summarizes the data sets evaluated in determining COPCs in this addendum for each of the sewage lagoons, the ditch, and the lakes.

Once the new data from the 1994 investigation were compiled, COPCs were determined statistically for each site and each exposure medium. These COPCs were then combined, when appropriate, with the COPCs reported in the 1993 risk assessment report (Radian, 1993a) to generate a list of COPCs for this addendum. Figure 2-1 is a flow diagram of the data set combination and selection process used to identify the updated COPCs for each sewage lagoon, the ditch, and the lakes. A complete discussion of the statistical methods used in deriving the updated COPCs and their exposure concentrations is provided in Appendices A through D of this addendum.

Section 3.0 discusses the methodology used in selecting the chemicals of concern (COCs) for this addendum.

2.1 Ponds A and B

For these two sewage lagoons, the 1993 and 1995 data sets were used to obtain the updated COPCs. These data were used exclusively since sludge was removed from both sewage lagoons in 1990. Because of this removal action, these data were chosen as the data sets that best represented updated conditions at Ponds A and B.

2.2 Pond D

Data were collected at Pond D in 1994 and 1995. The COPCs for this sewage lagoon were determined in four steps:

1) Determine COPCs for the 1994 data;

2) Determine COPCs for the 1995 data;

3) Combine the 1994 and 1995 COPCs with the COPCs from the 1993 risk assessment; and

4) Generate COPCs from the combined data sets.

2.3 Pond F

Because there were no significant risks estimated for this sewage lagoon in 1993, no new data were collected from any medium. Therefore, no new risks are estimated in this addendum.

Table 2-1
Summary of the Data Sets Available to Determine COPCs for the Risk Assessment Addendum

Site	Media Sampled	Year Data Set Collected					
		1988	1990	1992	1993	1994	1995
Pond A [a]	Sludge	x	x		x		x
	Soil		x				
	Surface Water				x		
Pond B [a]	Sludge	x	x				x
	Soil		x				
	Surface Water		x		x		
Pond C	Sludge		x	x		x	x [b]
	Soil		x				
	Surface Water		x			x	
Pond D	Soil			x			
	Sludge					x	x
	Surface water		x		x	x	
Pond E	Soil			x			
	Sludge			x	x	x	
	Surface water		x		x	x	
Pond G	Soil			x			
	Sludge			x		x	
	Surface Water		x		x	x	
	Water Fowl [c]				x		
The Ditch	Soil			x	x	x	
	Surface water				x	x	
	Water Fowl [c]				x		
Lake Holloman	Soil			x			
	Sludge			x		x	
	Surface water		x		x	x	
	Water Fowl [c]				x		
Lake Stinky	Soil			x	x	x	
	Surface Water			x			
	Water Fowl [c]				x		

Note: The groundwater is monitored regularly through the groundwater monitoring network for the sewage lagoons as part of the federal facility compliance agreement (FFCA).

[a] Only 1993 and 1995 data were used to determine COPCs in Ponds A and B because the sludge was removed in 1990.
[b] Sludge samples collected in 1995 were analyzed only for reactive sulfide.
[c] One mallard was caught at Pond G only. The data from this one duck was used for Pond G, the ditch, and Lakes Holloman and Stinky.

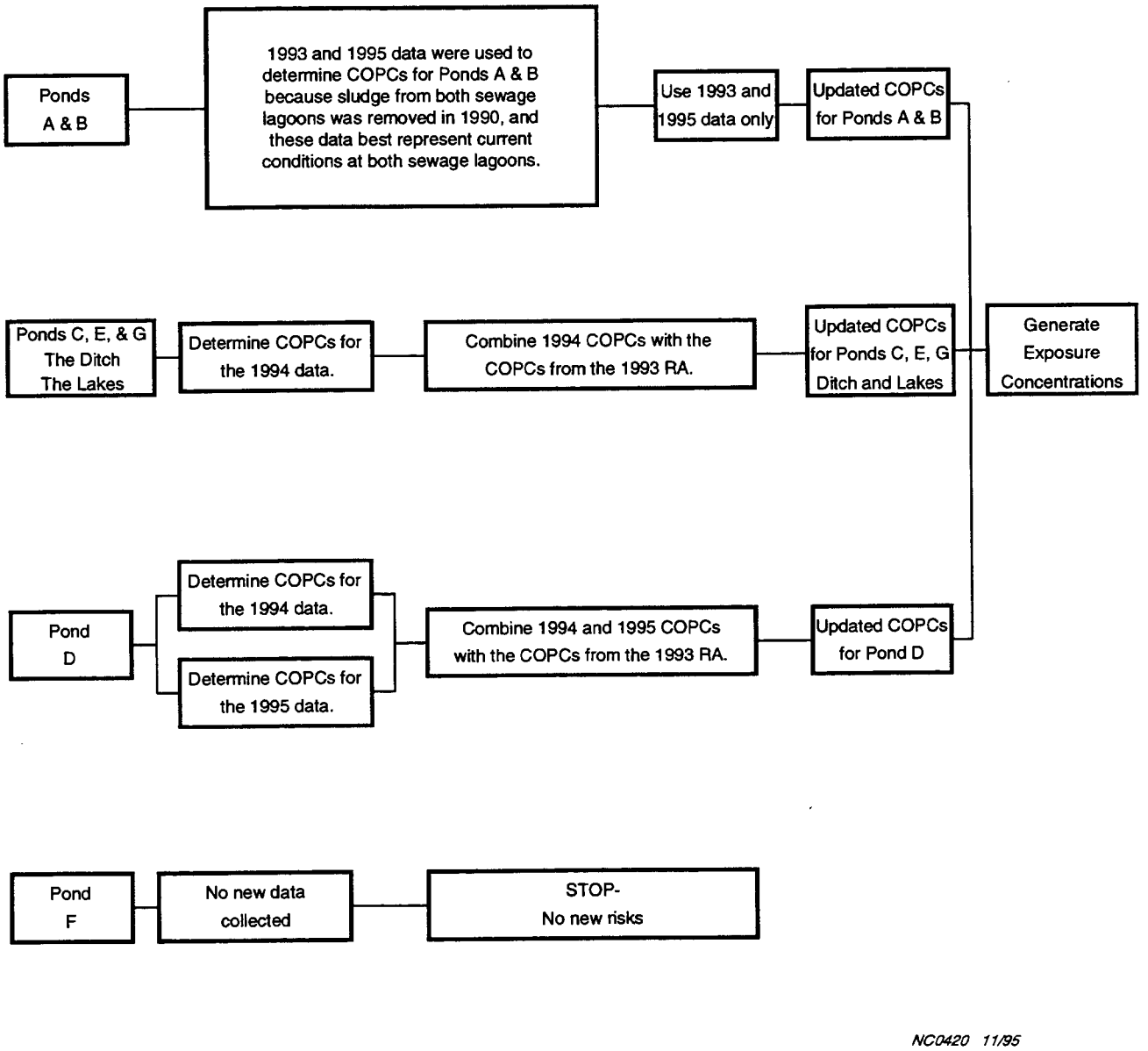


Figure 2-1. Decision Flow Chart for Determining COPCs for the Risk Assessment Addendum

2.4 All Other Sites

At Ponds C, E, and G, the ditch, and the lakes, additional data were collected in 1994. The COPCs were determined in three steps for these remaining sites:

1) Determine COPCs for the 1994 data;
2) Combine the 1994 COPCs with the COPCs from the 1993 risk assessment; and
3) Generate COPCs from the combined data sets.

Table 2-2 lists the updated COPCs for each site, by exposure medium.

Table 2-2
COPCs for the Risk Assessment Addendum

Risk Group	COPCs for the Risk Assessment Addendum		
Pond A	**Sludge** Aroclor-1254 [c] **Soil / Surface Water** No 1994/1995 data collected.		
Pond B	**Sludge** Aroclor-1254 [c] **Soil / Surface Water** No 1994/1995 data collected		
Pond C	**Sludge** Arsenic [a,b] alpha-BHC [a,b] delta-BHC [a,b] gamma-BHC [b] Barium [a,b] Beryllium [a,b] Cadmium [a,b] Chromium [a,b] Cobalt [a,b] **Soil** No 1994/1995 data collected. **Surface Water** None.	Copper [a,b] 4,4'-DDD [a,b] 4,4'-DDE [a,b] 4,4'-DDT [a,b] Dieldrin [b] Endosulfan I [a,b] Kepone [b] Lead [a,b] Mercury [a,b]	Nickel [a,b] Selenium [a,b] Silver [a,b] Sulfide, Reactive [c] Sulfide, Total [c] Tin [b] Vanadium [a,b] Zinc [a,b]
Pond D	**Sludge** Aldrin [b] Arsenic [b] alpha-BHC [b] Barium [b] Beryllium [b] Chlordane [b] Chromium [b] **Soil** Arsenic [a] Barium [a] Beryllium [a] Chromium [a] Cobalt [a] **Surface Water** None.	Cobalt [b] Copper [b] 4,4'-DDD [b] 4,4'-DDE [b] 4,4'-DDT [b] Endosulfan II [b] Copper [a] 4,4'-DDD [a] 4,4'-DDE [a] 4,4'-DDT [a] Lead [a]	Lead [b] Nickel [b] Selenium [b] Silver [b] Vanadium [b] Zinc [b] Nickel [a] Selenium [a] Silver [a] Vanadium [a] Zinc [a]

Table 2-2
(Continued)

Risk Group	COPCs for the Risk Assessment Addendum		
Pond E	**Sludge**		
	Arsenic [a,b]	Copper [a,b]	Nickel [a,b]
	alpha-BHC [b]	4,4'-DDD [a,b]	Selenium [a,b]
	delta-BHC [b]	4,4'-DDE [a,b]	Silver [a,b]
	gamma-BHC [b]	4,4'-DDT [a,b]	Thallium [b]
	Barium [a,b]	Dieldrin [b]	Tin [a,b]
	Beryllium [b]	Lead [a,b]	Vanadium [a,b]
	Chromium [a,b]	Mercury [a,b]	Zinc [a,b]
	Cobalt [b]		
	Soil		
	No 1994/1995 data collected.		
	Surface Water		
	None.		
Pond F	**Sludge / Soil / Surface Water**		
	None		
Pond G	**Sludge**		
	Arsenic [a,b]	Copper [a,b]	Lead [a,b]
	alpha-BHC [a,b]	4,4'-DDD [a,b]	Mercury [a,b]
	delta-BHC [b]	4,4'-DDE [a,b]	Nickel [a,b]
	Barium [a,b]	4,4'-DDT [a,b]	Selenium [a,b]
	Beryllium [a,b]	Dieldrin [b]	Silver [b]
	Chlordane [b]	Heptachlor epoxide [b]	Vanadium [a,b]
	Chromium [a,b]	Kepone [b]	Zinc [a,b]
	Cobalt [a,b]		
	Soil / Surface Water		
	No 1994/1995 data collected.		
The Ditch	**Sludge**		
	NA		
	Soil		
	Aldrin [a,b]	Cobalt [a,b]	Lead [a,b]
	Arsenic [a,b]	Copper [a,b]	Methoxychlor [b]
	delta-BHC [a,b]	4,4'-DDD [a,b]	Nickel [a,b]
	gamma-BHC [a,b]	4,4'-DDE [a,b]	Selenium [a,b]
	Barium [a,b]	4,4'-DDT [a,b]	Silver [a,b]
	Beryllium [a,b]	Dieldrin [b]	Vanadium [a,b]
	Chlordane [b]	Endosulfan Sulfate [b]	Zinc [a,b]
	Chromium [a,b]	Endrin [b]	
	Surface Water		
	None		

Table 2-2
(Continued)

Risk Group	COPCs for the Risk Assessment Addendum		
Lake Holloman	**Sludge**		
	Arsenic [a,b]	Chromium [a,b]	Kepone [b]
	alpha-BHC [a,b]	Cobalt [a,b]	Lead [a,b]
	delta-BHC [a,b]	Copper [a,b]	Nickel [a,b]
	gamma-BHC [a,b]	4,4'-DDD [a,b]	Selenium [a,b]
	Barium [a,b]	4,4'-DDE [a,b]	Silver [b]
	Beryllium [b]	4,4'-DDT [a,b]	Thallium [b]
	Cadmium [b]	Dieldrin [a,b]	Vanadium [a,b]
	Chlordane [b]	Isodrin [b]	Zinc [a,b]
	Soil		
	No 1994/1995 data collected.		
	Surface Water		
	None.		
Lake Stinky	**Sludge**		
	NA		
	Soil		
	Aldrin [a,b]	Chromium [a,b]	Heptachlor [b]
	Arsenic [a,b]	Cobalt [a,b]	Heptachlor epoxide [b]
	alpha-BHC [a,b]	Copper [b]	Nickel [a,b]
	delta-BHC [a,b]	4,4'-DDD [b]	Selenium [a,b]
	gamma-BHC [a,b]	4,4'-DDT [b]	Vanadium [a,b]
	Barium [a,b]	Dieldrin [b]	Zinc [a,b]
	Beryllium [a,b]	Endrin [a,b]	
	Surface Water		
	No 1994/1995 data collected.		

[a] Analyte was identified as a COPC during the 1993 risk assessment
[b] Analyte was identified as a COPC based on the 1994 data.
[c] Analyte was identified as a COPC based on the 1995 data.

Note 1: Groundwater data were not collected during the 1994 and 1995 sample collection efforts. See the 1993 risk assessment report for groundwater conclusions (Radian, 1993a). Also, "Soil" includes both surface and subsurface soil.

Note 2: For a complete list of the analytes identified as COPCs in the 1993 risk assessment, refer to Appendix A, Table A-2.

NA = Not applicable. No data collected for this medium at the indicated site.
None = No COPCs for this medium at the indicated site.

Section 3
METHODOLOGY FOR THE HUMAN HEALTH RISK ASSESSMENT

Two approaches were used to estimate human health risks for each sewage lagoon, the ditch, and the lakes. First, risks were estimated for all analytes detected during the 1994 investigation that were not chemicals of concern (COCs) in the 1993 risk assessment. These analytes are referred to as the "New COCs". Second, risk estimates were recalculated for the analytes considered as COCs in both the 1993 risk assessment and this addendum. For these COCs, the recalculation of risk was based on the relative change in exposure concentration that occurred between the 1994 investigation and the 1993 risk assessment. Figure 3-1 illustrates the data selection process and rationale used in calculating risk estimates based on these two approaches.

Section 3.1 discusses the methods used to identify and calculate risks for the new COCs. Section 3.2 describes the *risk ratio method*, by which risks were recalculated using the ratio of the current exposure concentrations and those used in 1993.

3.1 Selection and Calculation of Risks For New COCs

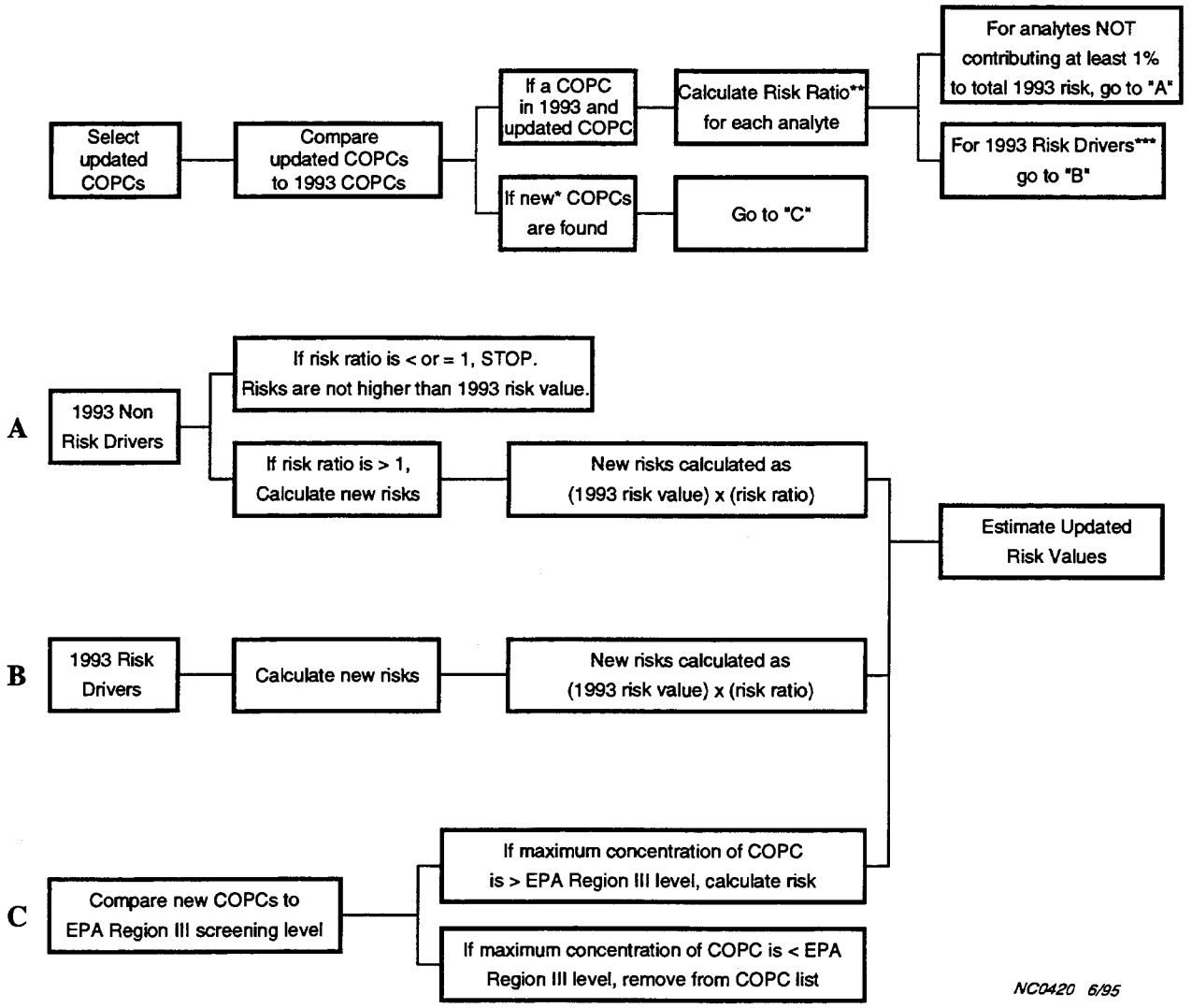
A two-step screening process was used to determine the new COCs. First, all COPCs selected for this addendum were compared, by site and exposure media, with the 1993 COCs for the same site and exposure media. If an analyte was a COPC in both 1993 and this addendum, then it was not considered a new COC (these analytes were evaluated according to the methodology outlined in Section 3.2). If, however, an analyte was not a COC in 1993, but was a COPC for this addendum, then the second step in selecting new COCs was followed.

A risk-based screening methodology was used to select the final list of updated COCs. This screening process followed guidance outlined in EPA's Region III Technical Guidance Manual for Risk Assessment, *Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening* (EPA, 1993a). This guidance provides the methodology to estimate risk-based screening levels for contaminants that correspond to a systemic noncancer hazard quotient of 0.1 or a lifetime cancer risk of 1E-6, and are based on the conservative algorithms for residential exposure to contaminants in soil and drinking water. An updated COPC was selected as a new COC only when its maximum detected concentration was greater than its corresponding EPA Region III risk-based screening level. Appendix E contains the output tables generated from the risk screening process.

Tables 3-1 list the analytes selected as new COCs for each site, by medium for each sewage lagoon, the ditch and the lakes. Because limited sampling was performed at Ponds A and B, no new COCs were identified during the 1994 investigation. Therefore, these sewage lagoons are not shown in Table 3-1. Pond F is not listed in Table 3-1 because samples were not collected during the 1994 investigation.

For each new COC, cancer and noncancer risk estimates were calculated for the revised exposure scenarios listed in Section 4 of this addendum that included the media where the analyte was detected. These risk estimates were based on the same exposure parameters used in the 1993 risk assessment and are presented individually for each site in Section 4 and Appendix F of this addendum.

Data collected from the breast tissues of one duck caught at Pond G were used to estimate human health risks in place of the modeled data



* *New = All analytes that are updated COPCs, for a given medium, that were not COPCs in 1993 for the same medium.*

** *Risk Ratio = (updated exposure point concentration)/(1993 RA exposure point concentration)*

*** *Risk drivers include: (a) all carcinogenic analytes exceeding 1 E-6 risk; (b) all noncarcinogenic analytes having an HQ > 1; and (c) all analytes > or = 1% of the total estimated cancer risk or noncancer hazard.*

COPCs = Chemicals of Potential Concern.

Figure 3-1
Decision Flow Chart for Determining New COPCs and Calculating Risk Ratios for the Risk Assessment Addendum

Table 3-1
Summary of the New COCs Identified

Analyte	Pond C	Pond D	Pond E	Pond G	The Ditch	Lake Holloman	Lake Stinky
Sludge and Soil [a,b]							
4,4'-DDD							x
4,4'-DDT							x
Aldrin		x					
alpha-BHC	x	x					
Beryllium		x	x			x	
delta-BHC				x			
Dieldrin	x		x	x	x		x
Endosulfan II		x					
Endosulfan sulfate					x		
Endrin					x		
gamma-BHC	x		x				
Heptachlor							x
Kepone	x			x		x	
Methoxychlor					x		
Thallium		x	x			x	
Surface Water							
No new COPCs identified							
Duck Breast Tissue [c]							
2,4'-DDE				x	d	d	d
4,4'-DDD				x	d	d	d
4,4'-DDE				x	d	d	d
4,4'-DDT				x	d	d	d
Antimony				x	d	d	d
Arsenic				x	d	d	d
Cadmium				x	d	d	d
Chromium				x	d	d	d
Dieldrin				x	d	d	d
Endrin				x	d	d	d

Table 3-1
(Continued)

Analyte	Pond C	Pond D	Pond E	Pond G	The Ditch	Lake Holloman	Lake Stinky
Duck Breast Tissue [c] (Continued)							
gamma-Chlordane				x	d	d	d
Heptachlor				x	d	d	d
Hexachlorobenzene				x	d	d	d
Magnesium				x	d	d	d
Mercury				x	d	d	d
Nickel				x	d	d	d
Oxychlordane				x	d	d	d
PCBs (total)				x	d	d	d
Selenium				x	d	d	d
Silver				x	d	d	d
Thallium				x	d	d	d
trans-Nonachlor				x	d	d	d

Note: Ponds A and B are not included because no new COCs were identified in those sewage lagoons.

[a] These COCs were selected using the EPA Region III screening process (EPA, 1993a and 1995b).

[b] For Ponds C, D, E, and G, and Lake Holloman, all COCs were detected in sludge. For the ditch and Lake Stinky, all COCs were detected in soil.

[c] Risk-based concentrations for contaminants in duck tissue are not provided by EPA; therefore, these new COCs were not screened using EPA Region III screening methodology.

[d] The tissue data shown are from one duck taken from Pond G. However, data from this sample were also applied to the ditch and Lakes Holloman and Stinky.

previously used in the 1993 risk assessment (Radian, 1993a). The rationale for excluding these modeled data is discussed in Section 4.9 of this addendum. Because these tissue data were used exclusively to determine COCs, any analyte with a confirmed detection was considered a new COC in duck tissue for this addendum. These new COCs are also listed in Table 3-1.

3.2 Risk Ratio Method

The risk ratio method was used to estimate risks for all analytes that were COCs in 1993 and COPCs in this addendum.

In the 1993 risk assessment, cancer risks and noncancer hazards were estimated for each COC. The magnitude of these risk estimates was directly proportional to the concentration of the COC at a given site. If the concentration of a COC were to change (e.g., due to improved sampling or environmental degradation), then the risk for that COC would also change proportionately (under the same exposure conditions). This concept of proportional change is the basis of the risk ratio method.

The risk ratio represents the change in chemical concentration, or exposure concentration, as reported in the 1993 risk assessment to the exposure concentrations derived from the 1994 investigation (due primarily to the availability of additional data to characterize a site). In this case, the risk ratio represents the updated exposure concentration divided by the 1993 exposure concentration. Mathematically, the risk ratio is expressed as:

Risk Ratio = (Updated ExpCon) / (1993 ExpCon)

where,

ExpCon = Exposure Concentration for each COC

For the 1993 risk assessment and this addendum, the mean concentration, and 95% upper confidence limit for the mean (UCL), were used to estimate risks for the average and reasonable maximum exposure concentrations, respectively.

Since risk and exposure concentration are proportional to one another, an adjusted health risk value for this addendum could be calculated by multiplying the 1993 risk value by the risk ratio. This relationship is represented in the following equation:

Adjusted Risk = (1993 Risk Value) × (Risk Ratio).

For example, assume that in 1993 Chemical A was detected in soil at a concentration of 1 mg/kg and produced a risk value of 10. Then, during the 1994 investigation, the exposure concentration for Chemical A was 2 mg/kg, twice the original concentration. Since risk and exposure concentration are proportional to one another, the resultant risk value for Chemical A would also be twice the 1993 estimate, or 20.

Using the risk ratio method, the adjusted risk for Chemical A would be calculated in two steps:

1) Risk Ratio for Chemical A
= (Updated ExpCon) / (1993 ExpCon)
= (2 mg/kg) / (1 mg/kg)
= 2

2) Adjusted Risk for Chemical A
= (1993 Risk Value) x (Risk Ratio)
= (10) × (2)
= 20

In this simple example, the adjusted risk value represents the updated risk value for Chemical A. In more complex exposure scenarios, such as those evaluated in the 1993 risk assessment, multiple chemicals and multiple exposure media are considered when estimating total risk. Therefore, the adjusted risk value for a

single constituent may only partially contribute to the total risk value in this addendum.

The risk ratio method was used to recalculate cancer risk and noncancer hazard estimates for analytes that were considered COCs in the 1993 risk assessment and COPCs in this addendum for the same exposure media. However, risk estimates were not recalculated for all these analytes. As shown in Figure 3-1, risks were estimated using the risk ratio method for either of two conditions:

1) Risks were recalculated for all analytes having a risk ratio greater than 1.0 (i.e., chemical concentrations increased since 1993).

2) Risk ratios were used to recalculate risks for all COCs that contributed at least 1% to the overall risk value in 1993.

At Ponds A and B only, if an analyte was listed as a COC in sludge in the 1993 risk assessment, but was not detected (ND) in the 1995 sludge samples, a risk ratio of 0.0 was assigned to that analyte. A 0.0 value was assigned to these analytes because sludge, containing PCBs at a concentration greater than 25 mg/kg, was removed from Ponds A and B in 1990, and the 1993 risk estimates for sludge were based on data collected before the 1990 removal action. Therefore, the 1995 data set best represents current conditions in sludge at Ponds A and B.

The risk ratios calculated for each site, by exposure media, are presented in Table 3-2. These ratios were calculated for both the average and reasonable maximum exposure concentration for each COPC (shown in this table as the mean and UCL, respectively).

3.3 Calculation of Updated Risk Estimates

When presenting the overall risk for an exposure scenario in this addendum, the total risk value was calculated as the sum of the following three data sets:

1) The total risk value from the 1993 risk assessment;

2) The total relative change in the 1993 risk value (determined using the risk ratio method); and

3) The risk estimates for all new COCs.

The total relative change in a 1993 risk value was determined as follows:

Relative Change in 1993 Risk
= (Adjusted Risk Value) - (1993 Risk Value).

By summing the 1993 risk value, the total relative change to that value, and the risk estimates for new COCs, an updated risk value is produced that reflects a more current understanding of the contaminant concentrations at the sewage lagoons and lakes since the 1993 risk assessment. A detailed discussion of these calculations, for each site, is presented in Appendix F.

Table 3-2
Risk Ratios for the Human Health Risk Assessment

Site	Analyte (by media)		Risk Ratios		Exposure Concentrations (mg/kg)			
					1993 COCs		Updated COPCs	
			Mean	UCL	Mean	UCL	Mean	UCL
Pond A								
	Sludge							
	Aroclor-1254		0.4	0.5	7.4 E+0	9.0 E+0	2.7 E+0	4.7 E+0
	Aroclor-1260	*a*	0.0	0.0	2.4 E+0	2.8 E+0	ND	ND
Pond B								
	Sludge							
	Aroclor-1254		0.4	0.5	6.0 E+0	7.3 E+0	2.2 E+0	3.7 E+0
	Aroclor-1260	*a*	0.0	0.0	1.6 E+0	1.9 E+0	ND	ND
Pond C								
	Sludge							
	4,4'-DDD		0.5	0.5	2.3 E+0	4.7 E+0	1.2 E+0	2.3 E+0
	4,4'-DDE		0.6	0.5	9.9 E-1	2.2 E+0	5.6 E-1	1.1 E+0
	4,4'-DDT		0.3	0.4	1.7 E-1	2.6 E-1	5.7 E-2	9.6 E-2
	Arsenic		1.0	0.9	1.7 E+0	2.2 E+0	1.7 E+0	2.0 E+0
	Barium		1.0	1.0	9.1 E+1	1.0 E+2	9.2 E+1	1.0 E+2
	Beryllium		0.8	0.8	3.2 E-1	4.2 E-1	2.6 E-1	3.2 E-1
	Cadmium		0.6	0.6	3.9 E+0	5.1 E+0	2.2 E+0	2.8 E+0
	Chromium		0.9	0.8	5.0 E+1	6.9 E+1	4.6 E+1	5.7 E+1
	Cobalt		0.8	0.8	5.3 E+0	6.5 E+0	4.4 E+0	5.2 E+0
	Copper		0.9	0.8	1.0 E+2	1.6 E+2	9.2 E+1	1.2 E+2
	delta-BHC		0.3	0.3	1.5 E+0	3.0 E+0	4.8 E-1	9.6 E-1
	Endosulfan I		0.4	0.4	8.3 E-1	1.7 E+0	3.4 E-1	7.0 E-1
	Lead		0.8	0.7	2.2 E+1	3.2 E+1	1.7 E+1	2.2 E+1
	Mercury		0.6	0.6	9.6 E-1	1.2 E+0	6.0 E-1	7.9 E-1
	Nickel		1.0	1.0	9.6 E+0	1.1 E+1	9.8 E+0	1.1 E+1
	Selenium		0.8	0.7	2.3 E+0	3.4 E+0	1.8 E+0	2.4 E+0
	Silver		0.9	0.8	9.5 E+1	1.5 E+2	8.6 E+1	1.2 E+2
	Vanadium		1.0	1.0	3.2 E+1	3.9 E+1	3.4 E+1	3.8 E+1
	Zinc		0.9	0.8	1.4 E+2	1.9 E+2	1.2 E+2	1.5 E+2

Table 3-2
(Continued)

Site	Analyte (by media)		Risk Ratios		Exposure Concentrations (mg/kg)			
					1993 COCs		Updated COPCs	
			Mean	UCL	Mean	UCL	Mean	UCL
Pond D								
	Sludge							
	4,4'-DDD	*b*	0.6	0.4	2.8 E-2	7.8 E-2	1.8 E-2	3.2 E-2
	4,4'-DDE	*b*	***1.1***	0.8	5.1 E-3	1.2 E-2	5.5 E-3	9.1 E-3
	4,4'-DDT	*b*	***1.5***	***1.3***	8.6 E-3	1.9 E-2	1.3 E-2	2.4 E-2
	Arsenic	*b*	***1.4***	***1.3***	1.2 E+0	1.7 E+0	1.7 E+0	2.1 E+0
	* Barium	*b*	***1.2***	***1.1***	4.4 E+1	5.6 E+1	5.4 E+1	6.2 E+1
	Chlordane	*b,c*	***5.1***	***10.3***	4.5 E-4	4.5 E-4	2.3 E-3	4.6 E-3
	* Chromium	*b*	NA	NA	NA	NA	4.2 E+0	5.3 E+0
	Cobalt	*b*	0.7	0.8	3.4 E+0	3.7 E+0	2.4 E+0	3.0 E+0
	delta-BHC	*b*	0.1	0.1	4.4 E-3	8.2 E-3	5.8 E-4	1.0 E-3
	Endosulfan sulfate	*b*	0.0	0.0	1.1 E-2	2.2 E-2	6.0 E-7	8.0 E-7
	Lead	*b*	0.6	***2.7***	7.1 E+0	2.8 E+0	4.4 E+0	7.6 E+0
	Nickel	*b*	0.4	0.5	7.3 E+0	8.6 E+0	3.2 E+0	4.2 E+0
	* Selenium	*b*	***1.7***	***2.1***	4.4 E-1	4.7 E-1	7.4 E-1	9.8 E-1
	* Vanadium	*b*	***1.6***	***1.5***	1.0 E+1	1.3 E+1	1.7 E+1	2.0 E+1
	* Zinc	*b*	***2.9***	***2.6***	1.1 E+1	1.5 E+1	3.2 E+1	3.9 E+1
Pond E								
	Sludge							
	4,4'-DDD		0.3	0.2	1.0 E+0	2.6 E+0	2.8 E-1	6.1 E-1
	4,4'-DDE		0.3	0.3	3.7 E-1	8.2 E-1	1.1 E-1	2.1 E-1
	4,4'-DDT		0.3	0.4	1.0 E-1	1.3 E-1	3.0 E-2	4.6 E-2
	Arsenic		1.0	1.0	1.8 E+0	2.3 E+0	1.9 E+0	2.3 E+0
	* Barium		***1.1***	*1.0*	7.3 E+1	9.3 E+1	8.2 E+1	9.4 E+1
	alpha-BHC	*b*	0.1	0.1	1.5 E-3	1.6 E-3	1.0 E-4	1.8 E-4
	delta-BHC	*b*	0.2	0.1	5.1 E-3	8.8 E-3	9.2 E-4	1.2 E-3
	Chromium		0.9	0.9	1.9 E+1	2.7 E+1	1.8 E+1	2.4 E+1
	Copper		0.7	0.6	3.7 E+1	5.7 E+1	2.7 E+1	3.4 E+1
	Lead		0.5	0.5	1.2 E+1	1.6 E+1	6.7 E+0	8.5 E+0
	Mercury		0.6	0.6	2.7 E-1	3.9 E-1	1.6 E-1	2.2 E-1
	Nickel		0.8	0.7	6.9 E+0	9.3 E+0	5.7 E+0	7.0 E+0
	Selenium		0.7	0.6	1.5 E+0	2.1 E+0	1.0 E+0	1.3 E+0
	Silver		0.9	0.8	2.2 E+1	3.4 E+1	2.1 E+1	2.9 E+1
	* Tin		***60.9***	NA	2.7 E-1	NA	1.6 E+1	2.3 E+1
	* Vanadium		***1.1***	1.0	2.5 E+1	3.3 E+1	2.8 E+1	3.3 E+1
	Zinc		0.8	0.7	5.4 E+1	7.6 E+1	4.5 E+1	5.5 E+1

Table 3-2
(Continued)

Site	Analyte (by media)		Risk Ratios		Exposure Concentrations (mg/kg)			
					1993 COCs		Updated COPCs	
			Mean	UCL	Mean	UCL	Mean	UCL
Pond G								
	Sludge							
	4,4'-DDD		0.3	0.3	8.3 E-1	1.8 E+0	2.4 E-1	4.5 E-1
	4,4'-DDE		0.4	0.3	1.8 E-1	3.1 E-1	6.4 E-2	9.9 E-2
	4,4'-DDT		0.3	0.3	8.2 E-2	1.2 E-1	2.7 E-2	4.0 E-2
	alpha-BHC		0.2	0.3	4.7 E-2	7.4 E-2	1.1 E-2	2.0 E-2
	Arsenic		***1.3***	***1.1***	2.1 E+0	2.7 E+0	2.6 E+0	3.0 E+0
	Barium		1.0	0.9	8.8 E+1	1.0 E+2	8.4 E+1	9.3 E+1
	Beryllium		0.6	0.5	5.8 E-1	7.7 E-1	3.2 E-1	4.0 E-1
	gamma-BHC	*b*	0.0	0.1	2.0 E-3	2.5 E-3	9.8 E-5	1.4 E-4
	Chromium		0.7	0.7	1.4 E+1	1.7 E+1	9.7 E+0	1.2 E+1
	Chlordane	*d*	0.1	0.1	8.8 E-2	1.8 E-1	8.8 E-3	1.3 E-2
	Cobalt		0.8	0.7	4.4 E+0	5.4 E+0	3.3 E+0	3.9 E+0
	Copper		0.8	0.8	1.9 E+1	2.4 E+1	1.6 E+1	1.9 E+1
	Lead		0.4	0.3	6.5 E+1	1.5 E+2	2.6 E+1	4.5 E+1
	* Mercury		***1.3***	***1.1***	1.4 E-1	2.0 E-1	1.8 E-1	2.1 E-1
	Nickel		0.9	0.8	8.4 E+0	1.0 E+1	7.2 E+0	8.3 E+0
	Selenium		0.9	0.8	1.1 E+0	1.5 E+0	9.6 E-1	1.2 E+0
	Vanadium		0.9	0.8	2.3 E+1	2.8 E+1	2.0 E+1	2.3 E+1
	Zinc		0.9	0.8	4.6 E+1	5.8 E+1	4.1 E+1	4.8 E+1
The Ditch								
	Soil							
	4,4'-DDD		0.9	0.8	5.6 E-2	1.2 E-1	5.1 E-2	9.9 E-2
	4,4'-DDE		0.8	0.7	1.3 E-2	2.8 E-2	1.0 E-2	2.0 E-2
	4,4'-DDT		0.8	0.7	2.0 E-2	4.9 E-2	1.5 E-2	3.6 E-2
	Aldrin		***1.2***	***1.3***	1.4 E-3	1.5 E-3	1.7 E-3	2.0 E-3
	Arsenic		0.9	0.8	3.0 E+0	5.0 E+0	2.7 E+0	4.2 E+0
	* Barium		***1.1***	***1.1***	6.3 E+1	8.1 E+1	7.2 E+1	8.8 E+1
	Beryllium		1.0	1.0	6.7 E-1	7.6 E-1	6.7 E-1	7.6 E-1
	Chlordane	*c*	**5.4**	**7.5**	7.5 E-3	1.7 E-2	4.0 E-2	1.3 E-1
	* Chromium		***1.4***	***1.4***	8.7 E+0	1.2 E+1	1.2 E+1	1.6 E+1
	Cobalt		1.0	1.0	4.4 E+0	5.3 E+0	4.5 E+0	5.1 E+0
	* Copper		***1.2***	***1.2***	8.9 E+0	1.1 E+1	1.0 E+1	1.3 E+1
	delta-BHC		0.7	0.7	2.0 E-1	3.5 E-1	1.4 E-1	2.6 E-1
	gamma-BHC		0.7	0.8	2.3 E-3	3.3 E-3	1.7 E-3	2.5 E-3
	Lead		***1.0***	0.9	2.0 E+1	4.0 E+1	2.1 E+1	3.6 E+1
	* Nickel		***1.1***	***1.1***	8.2 E+0	1.0 E+1	9.2 E+0	1.1 E+1
	Selenium		0.3	NA	7.1 E+0	NA	1.8 E+0	4.7 E+0
	* Silver		***2.4***	NA	5.9 E-1	NA	1.4 E+0	2.1 E+0
	* Vanadium		***1.2***	***1.1***	1.7 E+1	2.2 E+1	2.0 E+1	2.4 E+1
	* Zinc		***1.2***	***1.1***	3.1 E+1	4.4 E+1	3.6 E+1	4.7 E+1

Table 3-2
(Continued)

Site	Analyte (by media)	Risk Ratios		Exposure Concentrations (mg/kg)			
				1993 COCs		Updated COPCs	
		Mean	UCL	Mean	UCL	Mean	UCL
Lake Holloman							
	Sludge						
	4,4'-DDD	0.4	0.3	9.0 E-2	2.6 E-1	3.2 E-2	6.8 E-2
	4,4'-DDE	0.4	0.3	1.4 E-2	2.5 E-2	5.3 E-3	8.3 E-3
	4,4'-DDT	0.2	0.3	9.4 E-3	1.3 E-2	2.1 E-3	3.5 E-3
	alpha-BHC	0.2	0.3	5.3 E-3	7.2 E-3	1.2 E-3	1.9 E-3
	Arsenic	0.6	0.5	3.0 E+0	4.3 E+0	1.7 E+0	2.0 E+0
	Barium	0.8	0.7	9.6 E+1	1.4 E+2	7.5 E+1	9.4 E+1
	Chlordane *e*	**1.2**	**1.2**	1.6 E-2	3.5 E-2	1.9 E-2	4.4 E-2
	Chromium	0.6	0.6	1.1 E+1	1.7 E+1	6.8 E+0	9.3 E+0
	Cobalt	0.6	0.6	7.6 E+0	1.2 E+1	4.6 E+0	7.6 E+0
	Copper	0.7	0.6	1.4 E+1	2.1 E+1	9.5 E+0	1.2 E+1
	delta-BHC	0.2	0.2	1.1 E+0	3.0 E+0	2.4 E-1	6.1 E-1
	Dieldrin	0.2	0.2	4.0 E-2	6.8 E-2	9.2 E-3	1.6 E-2
	gamma-BHC	0.2	0.3	6.5 E-3	9.6 E-3	1.5 E-3	2.5 E-3
	Lead	0.5	0.4	1.3 E+1	2.2 E+1	6.2 E+0	8.5 E+0
	Nickel	0.6	0.5	1.2 E+1	1.9 E+1	6.9 E+0	9.4 E+0
	Selenium	0.4	0.4	1.4 E+0	1.9 E+0	5.3 E-1	7.3 E-1
	Vanadium	0.9	0.8	2.1 E+1	3.1 E+1	1.8 E+1	2.5 E+1
	Zinc	0.7	0.6	3.7 E+1	5.6 E+1	2.7 E+1	3.4 E+1
Lake Stinky							
	Soil						
	Aldrin	0.4	0.4	7.5 E-3	1.3 E-2	3.3 E-3	5.9 E-3
	alpha-BHC	0.4	0.4	5.5 E-3	1.0 E-2	2.4 E-3	4.4 E-3
	Arsenic	0.9	0.8	2.7 E+0	3.4 E+0	2.4 E+0	2.7 E+0
	Barium	0.9	0.9	7.2 E+1	8.0 E+1	6.2 E+1	6.9 E+1
	Beryllium	0.7	0.7	6.4 E-1	7.1 E-1	4.3 E-1	5.3 E-1
	Chromium	0.8	0.8	7.0 E+0	9.0 E+0	5.9 E+0	7.2 E+0
	Cobalt	0.8	0.9	3.5 E+0	4.0 E+0	2.9 E+0	3.4 E+0
	delta-BHC	0.4	0.4	8.8 E-1	1.8 E+0	3.7 E-1	7.7 E-1
	Endrin	0.5	0.4	6.4 E-3	1.1 E-2	2.9 E-3	5.0 E-3
	gamma-BHC	0.4	0.4	1.0 E-2	1.9 E-2	4.5 E-3	8.3 E-3
	Nickel	0.9	1.0	6.9 E+0	7.2 E+0	6.1 E+0	7.3 E+0
	Selenium	0.6	0.7	4.5 E-1	5.1 E-1	2.8 E-1	3.6 E-1
	Vanadium	0.9	0.9	1.4 E+1	1.7 E+1	1.2 E+1	1.5 E+1
	Zinc	0.9	0.8	2.3 E+1	3.0 E+1	2.1 E+1	2.5 E+1

a Analyte was not detected (ND) at the site during the 1994 investigation. Previous analytical results were from samples collected prior to a removal action; therefore it was eliminated as a COC in this addendum.

b Ratios calculated from 1993 soil data and 1995 sludge data. Sludge and soil exposures are equivalent.

c Ratios calculated from 1993 soil data for alpha-Chlordane and 1995 sludge data for total Chlordane. Toxicity values for both are equivalent.

d Ratios calculated from 1993 soil data for gamma-Chlordane and 1995 sludge data for total Chlordane. Toxicity values for both are equivalent. Sludge and soil exposures are also equivalent.

e Ratios calculated from 1993 sludge data for gamma-Chlordane and 1995 sludge data for total Chlordane. Toxicity values for both are equivalent.

NA 1993 data were not available for this analyte since it was not a listed COC in 1993.

* Analyte was detected below the EPA Region III screening level in both 1993 and for this addendum; therefore, it was eliminated as a COPC.

COPC = Chemical of Potential Concern COC = Chemical of Concern UCL = Upper Confidence Limit

Section 4
HUMAN HEALTH RISK ASSESSMENT UPDATE SUMMARY

This section presents a summary of the human health risks estimated for the impoundments in the sewage lagoons and lakes. These updated risk estimates were derived, as described in Section 3, using the results of the 1993 human health risk estimates along with additional data collected during the 1994 investigation. An overview of the updated risk assessment assumptions are presented first followed by a summary of the potential risks for the sewage lagoons and lakes. A complete discussion of the calculations used to derive the updated risk estimates is provided in Appendix F of this addendum.

4.1 Updated Risk Assessment Assumptions

In general, health risks to human receptors at a given site are restricted to the contaminants detected at that site. There are, however, two exceptions to this general approach.

The first concerns the current/future recreational scenario at Pond G, the ditch, and the lakes where hunters could ingest waterfowl (ducks) caught at a given site. Since these birds could feed at one or more of these sites, contaminants found in their meat could also be related to all sites. Given the possibility of contaminant uptake from multiple sources, the contaminants detected in the duck taken from Pond G, were used in estimating health risks for all these sites. Therefore, cancer risk and noncancer hazard estimates for this scenario are the same at Pond G, the ditch, and the lakes.

The second exception deals with the inhalation of fugitive dusts and volatile chemicals at Lakes Holloman and Stinky. An air dispersion model was used to estimate contaminant concentrations in air over both lakes. The key assumption used in this model was that the soil from Lake Stinky was the only source from which the contaminants in air originated. This assumption was made because most of Lake Stinky is dry most of the time which exposes the underlying soil. Then, contaminants from the dried portions of the lake bed may become suspended in air through wind-blown action and disperse over both lakes. Therefore, Lake Stinky is the only contaminant source for airborne matter at both Lakes Holloman and Stinky.

4.1.1 Updated Exposure Scenarios Evaluated

In the 1993 risk assessment report (Radian, 1993a), exposure scenarios at the sewage lagoons and lakes were selected based on historical knowledge of the sites. With a more current understanding of the sewage lagoons and lakes and their future disposition, the exposure scenarios selected for evaluation have been updated.

Four exposure scenarios were evaluated in the risk assessment addendum to estimate cancer risks and noncancer hazards at the sewage lagoons and lakes. These four scenarios, their exposure pathways, and the sites they are associated with are presented below. The rationale for selecting these scenarios and the exposure parameters used to estimate health risks are presented in detail in the 1993 risk assessment report (Radian, 1993a), and remain unchanged with the exception of the current/future recreational scenario.

1) **Current On-site Worker (chronic and subchronic).** This exposure scenario was evaluated at Ponds A through G and the ditch. The exposure pathways associated with this scenario are dermal contact with surface water, soil, sludge, and sediment.

2) **Current/Future Recreational—Hunters (chronic and subchronic).** This scenario was evaluated at Pond G, the ditch, and the lakes for

both children and adults. Children are being evaluated only for ingestion of waterfowl.

Hunters—The exposure pathways associated with these individuals are the following:

- Dermal contact with surface water, soil, sludge, and sediment;
- Ingestion of surface water;
- Ingestion of waterfowl; and
- Inhalation of fugitive dust.

The only exposure parameters changed for the current/future recreational scenario are the ingestion rates for duck hunters. In the 1993 risk assessment, the average and reasonable maximum ingestion rates were 7 and 14 ducks per year, respectively. These ingestion rates were based on the average duck harvest of 7.2 ducks per hunter as reported by the Colorado Division of Wildlife (Colorado Division of Wildlife, 1974).

Because more appropriate duck harvest data exist for the State of New Mexico, these 1993 exposure parameters were updated. In this addendum, ingestion rates for hunters are based on the 1994 statewide average number of ducks harvested per year by active adult hunters (FWS, 1995). Based on the average duck harvest in New Mexico of 3.1 ducks per hunter, the average and reasonable maximum ingestion rate for duck hunters was set at 3 and 6 ducks per year, respectively. The reasonable maximum ingestion rate was conservatively selected as twice the average intake rate since the only duck harvest data available for the State of New Mexico is an annual average value.

3) **Current/Future Trespasser—Teenager (subchronic).** This exposure scenario was evaluated only at Pond G. Although Ponds A through G are fenced (in order to prevent trespassing), Pond G is somewhat isolated from the other sewage lagoons and normal base activity; therefore, it was assumed that trespassers could gain access to Pond G. The exposure pathways associated with this scenario are 1) ingestion of surface water and 2) dermal contact with surface water, soil, sludge, and/or sediment.

4) **Future Beef Consumer—Agricultural (chronic).** This exposure scenario was evaluated only at Lake Stinky. In this scenario, adults and children were assumed to be exposed to site-related constituents by ingesting the meat from cattle that foraged on grasses assumed to be irrigated by groundwater and that directly ingested the surface water at Lake Stinky.

4.1.2 Toxicity Values

Although the human health risks at each site in the sewage lagoons and lakes are evaluated separately in the following subsections, the toxicity values used to estimate cancer and noncancer risks at these sites are the same. The chronic and subchronic toxicity values for all COCs at the sewage lagoons and lakes are presented in Appendix F, Table F-1.

4.2 Summary of the Updated Risk Estimates for the Sewage Lagoons and Lakes

As described in Sections 2 and 3 previously, risk estimates were updated from the 1993 report based on data collected during the 1994 investigation and a better understanding of closure activities expected for the sewage lagoons. Since the 1993 risk assessment was prepared, Holloman AFB has proceeded further with plans for the new wastewater treatment plant. It is now known that Ponds A through F will be removed from service and will no longer be used as impoundments.

Criteria to evaluate the risk estimates were presented previously in Section 1.1. Target values were set at 1E-4 to 1E-6 for known or suspected carcinogens and 1 for noncarcinogens. These benchmark values are designed to protect human health and are used to differentiate between health

risks that are considered acceptable and those that require additional evaluation to determine significance. As mentioned previously in Section 1.1, cancer risk estimates higher than 1E-6 are not necessarily considered unacceptable. Also, given the uncertainty factors used to derive noncancer toxicity values, a hazard index greater than 1 may not indicate a greater chance of developing a health problem than a hazard index of 1, or less than 1.

These target risk values are not, however, necessarily the levels that will be used to define cleanup goals in the corrective measures study work plan. Selection of cleanup goals will also consider the location, accessibility, and closure activities planned.

Table 4-1 presents a summary of the updated average and reasonable maximum risk estimates. These estimates replace those previously presented in the 1993 report. The reasonable maximum cancer risk estimates for Ponds A, B and G, the ditch, and both lakes are greater than 1E-6. The average and reasonable maximum cancer risk estimates at all other sites, and exposure scenarios, are less than 1E-6. Noncancer hazard estimates at all sites, for all exposure scenarios, are less than 1.

The reasonable maximum cancer risk estimate at Ponds A and B is 2E-6 for the current on-site worker scenario. Aroclor-1254 was found in the sludge at both Ponds A and B, and is the primary risk driver at each of the sewage lagoons. At Pond B, 4,4'-DDE and benzo(a)pyrene in the sludge, and chlordane in the surface water also contributed to the overall risk estimate. Since these ponds will be closed once the new wastewater treatment plan initiates service, these risks will no longer apply.

A reasonable maximum cancer risk of 6E-6 was estimated for adult ingestion of waterfowl. This estimate is well within acceptable levels established by EPA for remediation goals and is based on data collected from only one duck breast tissue sample. The risk estimates from this one duck were extrapolated as risks for Pond G, the ditch, and the lakes since the future use of these impoundments in the new wastewater treatment system can still serve as duck habitat. The chemicals driving this risk estimate include PCBs and pesticides. However, it should be noted that although this risk assessment predicted a potential risk from ingesting duck tissue, chemical residues in the duck tissue were detected at levels 5 to 500 times lower than federal and/or state tolerance levels for commonly eaten foods (e.g., eggs, fish, and commercial poultry). For example, the acceptable PCB residue level in commercial poultry established by the Food and Drug Administration (FDA) is 3 mg/kg, and PCB levels found in the duck tissue is 0.006 mg/kg. This comparison suggests that the assumptions used in deriving this risk estimate are very conservative. Since ingestion of ducks caught at Holloman AFB is expected to occur less frequently than ingesting commonly eaten foods, these allowable tolerance levels could also apply to the ducks caught at the sewage lagoons and lakes. These tolerance levels also suggest that the chemical residues in ducks taken from the sewage lagoons and lakes are not of concern to hunters who ingest them.

All other exposure scenarios evaluated at the sewage lagoons and lakes resulted in cancer risk and noncancer hazard estimates less than 1E-6 and 1, respectively.

4.3 Pond A

The only exposure scenario considered at Pond A was the current on-site worker, both chronic and subchronic. This scenario assumes that workers would be exposed to sludge and surface water during routine maintenance activities, at a maximum rate of 12 days per year for 25 years.

Table 4-1
Summary of the Updated Risk Estimates

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway	Comments
POND A						Risks are well within acceptable levels based on EPA remedial goals . Also, risks will be mitigated once the sewage lagoon is removed from active service.
Current On-site Worker						
	Cancer Risk	< 1E-6	***2 E-6***	***Aroclor-1254 (100%)***	Dermal Contact - Sludge	
	Hazard Index	< 1	< 1	NA	NA	
POND B						Risks are well within acceptable levels based on EPA remedial goals . Also, risks will be mitigated once the sewage lagoon is removed from active service.
Current On-site Worker						
	Cancer Risk	< 1E-6	***2 E-6***	***Aroclor-1254 (76%)*** ***4,4'-DDE (8%)*** ***Benzo[a]pyrene (7%)*** ***Chlordane (4%)***	Dermal Contact - Sludge Dermal Contact - Surface water Dermal Contact - Sludge Dermal Contact - Surface water	
	Hazard Index	< 1	< 1	NA	NA	
POND C						None
Current On-site Worker						
	Cancer Risk	< 1E-6	< 1E-6	NA	NA	
	Hazard Index	< 1	< 1	NA	NA	
POND D						None
Current On-site Worker						
	Cancer Risk	< 1E-6	< 1E-6	NA	NA	
	Hazard Index	< 1	< 1	NA	NA	

Table 4-1
(Continued)

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway	Comments
POND E						
Current On-site Worker						
	Cancer Risk	< 1E-6	< 1E-6	NA	NA	None
	Hazard Index	< 1	< 1	NA	NA	
POND F						
Health risks were not estimated in this addendum since the 1993 cancer risks were < 1 E-6 and noncancer hazards were < 1.						
POND G THE DITCH LAKE HOLLOMAN LAKE STINKY						Cancer risk estimates are well within EPA's remedial goals for carcinogens. The levels of pesticide and PCB residues in duck tissue used to estimate these risks are 5 to 500 times lower than Federal and/or State allowable tolerance levels for these chemicals in commonly eaten foods. Therefore, these allowable tolerance levels should also apply to the ducks hunted at Holloman AFB. See Section 4.8.4 for a complete discussion of these tolerance levels. Additionally, the only known source of the PCBs (Ponds A & B) will be eliminated once Ponds A-F are removed from active service.
Current / Future Recreational (hunter) - Adult						
	Cancer Risk	< 1 E-6	*6 E-6*	***PCBs (total) (36%)***	Ingestion - Waterfowl	
				4,4'-DDE (23%)	Ingestion - Waterfowl	
				Oxychlordane (18%)	Ingestion - Waterfowl	
				Dieldrin (15%)	Ingestion - Waterfowl	
				gamma-Chlordane (4%)	Ingestion - Waterfowl	
				4,4'-DDD (3%)	Ingestion - Waterfowl	
	Hazard Index	< 1	< 1	NA	NA	
All Other Exposure Scenarios						
	Cancer Risk	< 1 E-6	< 1 E-6	NA	NA	
	Hazard Index	< 1	< 1	NA	NA	

The cancer risk and noncancer hazard estimates were derived using the 1993 data set combined with data obtained from the 1994 investigation. These data were used exclusively because sludge was removed from the sewage lagoon in 1990. Because of this removal action, these data were chosen as the data sets that best represented current conditions.

Table 4-2 summarizes the cancer and noncancer risk estimates for workers at Pond A. The average cancer risk estimate is well below 1E-6. The reasonable maximum cancer risk estimate is 2E-6 and is driven entirely by dermal exposure to Aroclor-1254 in the sludge. Concentrations of Aroclor-1254 in the sludge ranged from 0.3 to 7.1 mg/kg. Although the reasonable maximum risk estimate is 2E-6, this estimate is well within acceptable levels established by EPA. Moreover, risks from dermal contact with sludge will be mitigated once the new wastewater treatment system begins service and Pond A is removed from active service.

Noncancer hazard estimates are significantly less than 1 for all exposure cases, indicating that adverse health effects are unlikely.

4.4 Pond B

The only exposure scenario considered at Pond B was the current on-site worker, both chronic and subchronic. This scenario assumes that workers would be exposed to sludge and surface water, during routine maintenance activities, at a rate of 12 days per year for 25 years.

The cancer risk and noncancer hazard estimates were derived using the 1993 data set combined with data obtained from the 1994 investigation. These data were used exclusively because sludge was removed from the sewage lagoon in 1990. Because of this removal action, these data were chosen as the data sets that best represented current conditions.

Table 4-3 presents the cancer risk and noncancer hazard estimates for workers at Pond B. The average cancer risk estimate is well below 1E-6. The reasonable maximum cancer risk estimate is 2E-6, well within acceptable levels for carcinogenic effects. This risk is based primarily (76%) on dermal contact with Aroclor-1254 found in the sludge at Pond B. These two analytes account for 83% of the total risk value at Pond B. Benzo(a)pyrene in the sludge, and chlordane and 4,4'-DDE in the surface water contribute another 19% to this total cancer risk estimate. Concentrations of these constituents were:

Aroclor-1254	0.06 to 5.3 mg/kg in sludge
Benzo(a)pyrene	1.3 to 1.9 mg/kg in sludge
Chlordane	0.05 to 0.2 µg/L in surface water
4,4'-DDE	0.015 to 0.4 µg/L in surface water

Although the reasonable maximum cancer risk estimate for workers is slightly above 1E-6, it is well within acceptable levels established by EPA and the risk from dermal contact with sludge will be mitigated once the new wastewater treatment system begins service and Pond B is removed from active service.

Noncancer hazard estimates are less than 1 for all exposure cases, indicating that adverse health effects are unlikely.

4.5 Pond C

The only exposure scenario considered at Pond C was the current on-site worker, both chronic and subchronic. This scenario assumes that workers would be exposed to sludge and surface water during routine maintenance activities, at a maximum rate of 12 days per year for 25 years.

Table 4-4 presents the cancer risk and noncancer hazard estimates at Pond C. All cancer risk and noncancer hazard estimates, including average and reasonable maximum exposure cases,

Table 4-2
Summary of the Updated Risk Assessment Results
Pond A

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker					
(chronic)	Cancer Risk				
	93 Results (a)	1 E-7	*5 E-6*	NA	NA
	Risk Ratios (b)	-7 E-8	-3 E-6	NA	NA
	New COPCs	NA	NA		
	Total Risk	3 E-8	***2 E-6***	***Aroclor-1254 (100%)***	Dermal Contact - Sludge
(chronic)	Hazard Index	0.001	0.02	NA	NA
(subchronic)	Hazard Index	0.001	0.02	NA	NA

NA = Not Applicable

(a) Risk values shown here do not present contribution of heptachlor epoxide since it was eliminated as a COC. See the discussion of this analyte in Section 1 of this addendum.

(b) Values shown are the relative change in the 1993 risk value, which are based on the risk ratios. Refer to Table F-4 for a complete listing of these values.

Table 4-3
Summary of the Updated Risk Assessment Results
Pond B

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker	Cancer Risk				
(chronic)	93 Results	8E-08	*4 E-6*	NA	NA
	Risk Ratios (a)	-5 E-8	*-2 E-6*	NA	NA
	New COPCs	NA	NA		
	Total Risk	3 E-8	*2 E-6*	***Aroclor-1254 (76%)***	Dermal Contact - Sludge
				4,4'-DDE (8%)	Dermal Contact - Surface water
				Benzo[a]Pyrene (7%)	Dermal Contact - Sludge
				Chlordane (4%)	Dermal Contact - Surface water
(chronic)	Hazard Index				
	93 Results	0.02	0.8	NA	NA
	Risk Ratios (a)	–	–		
	New COPCs	–	–		
	Total Hazard	0.02	0.8		
(subchronic)	Hazard Index				
	93 Results	0.02	0.8	NA	NA
	Risk Ratios (a)	–	–		
	New COPCs	–	–		
	Total Hazard	0.02	0.8		

NA = Not Applicable

(a) Values shown are the "relative change in the 1993 risks" which are based on the Risk Ratios. Refer to Table F-8 for a complete listing of these values.

Table 4-4
Summary of the Updated Risk Assessment Results
Pond C

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker					
(chronic)	Cancer Risk				
	'93 Results	2.0 E-9	1.0 E-7		
	Risk Ratios (a)	NA	NA	NA	NA
	New COPCs	4.3 E-11	2 E-9		
	Total	2 E-9	1 E-7		
(chronic & subchronic)					
	Hazard Index				
	'93 Results	3 E-4	2 E-3		
	Risk Ratios (a)	-2 E-6	-4 E-4	NA	NA
	New COPCs	1 E-5	6 E-4		
	Total	0.0003	0.002		

NA = Not Applicable

(a) Values shown are the "relative change in the 1993 risks" which are based on the Risk Ratios. Refer to Table F-13 for a complete listing of these values.

were well below the target risk criteria and can be considered negligible.

Cancer risk estimates in this scenario are based on the sum of the 1993 risk estimates and the new COCs reported in the 1994 investigation. In 1993, cancer risk estimates for both the average and reasonable maximum exposure case were less than 1E-6 as well. The pathway- and chemical-specific cancer risk estimates for the new COCs are listed in Appendix G, Table G-1.

The noncancer hazard estimates for this scenario are based on the sum of the 1993 estimates, the relative change in the 1993 estimates based on the risk ratios, and the results from the new COCs found in the sludge during the 1994 investigation. The pathway- and chemical-specific noncancer hazards for the new COCs are listed in Appendix G, Table G-2.

4.6 Pond D

The only exposure scenario considered at Pond D was the current on-site worker, both chronic and subchronic. This scenario assumes that workers would be exposed to soil, sludge, and surface water, during routine maintenance activities, up to 12 days per year for up to 25 years.

Table 4-5 presents the cancer risk and noncancer hazard estimates at Pond D. All cancer risk and noncancer hazard estimates including average and reasonable maximum exposure cases, were well below target risk criteria and can be considered negligible.

Cancer risk and noncancer hazard estimates in this scenario are based on the sum of the 1993 risk estimates, the relative change in the 1993 estimates based on the risk ratios, and the new COCs found in the sludge during the 1994 investigation. The pathway- and chemical-specific cancer risk estimates for the new COCs are listed in Appendix G, Table G-3, and the noncancer estimates are listed in Table G-4.

4.7 Pond E

The only exposure scenario considered at Pond E was the current on-site worker, both chronic and subchronic. This scenario assumes that workers would be exposed to soil, sludge, and surface water, during routine maintenance activities, up to 12 days per year for 25 years.

Table 4-6 presents the cancer risk and noncancer hazard estimates at Pond E. All cancer risk and noncancer estimates, including average and reasonable maximum cancer exposure cases were lower than target risk criteria.

Cancer risk and noncancer hazard estimates in this scenario are based on the sum of the 1993 risk estimates and the new COCs found in the sludge during the 1994 investigation. The pathway- and chemical-specific cancer risk estimates for the new COCs are listed in Appendix G, Table G-5, and the noncancer hazard estimates are listed in Table G-6.

4.8 Pond F

In the 1993 risk assessment cancer risk and noncancer hazard estimates were less than 1E-6 and 1, respectively, for all exposure scenarios. This pond is relatively small and enough samples had been collected during previous investigations to determine the nature and extent of any contamination; therefore, no additional samples were collected during the 1994 investigation. The human health cancer risk and noncancer hazard estimates were not reevaluated in this addendum since the risk estimates presented in the 1993 risk assessment (Radian, 1993a) were lower than the target risk criteria.

Table 4-5
Summary of the Updated Risk Assessment Results
Pond D

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker					
(chronic)	Cancer Risk				
	'93 Results	2 E-10	1 E-8		
	Risk Ratios (a)	-1 E-10	2 E-8	NA	NA
	New COPCs	4 E-12	2 E-11		
	Total	**1 E-10**	**3 E-8**		
(chronic & subchronic)					
	Hazard Index				
	'93 Results	5 E-5	1 E-3		
	Risk Ratios (a)	2 E-7	7 E-4	NA	NA
	New COPCs	3 E-6	4 E-6		
	Total	**5 E-5**	**2 E-3**		

NA = Not Applicable

(a) Values shown are the "relative change in the 1993 risks" which are based on the Risk Ratios. Refer to Table F-18 for a complete listing of these values.

Table 4-6
Summary of the Updated Risk Assessment Results
Pond E

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker					
(chronic)	Cancer Risk				
	'93 Results	4 E-8	1 E-7		
	Risk Ratios	NA	NA	NA	NA
	New COPCs	1 E-12	5 E-12		
	Total	4 E-8	1 E-7		
(chronic & subchronic)					
	Hazard Index				
	'93 Results	0.02	0.2		
	Risk Ratios	NA	NA	NA	NA
	New COPCs	5 E-6	2 E-5		
	Total	0.02	0.2		

NA = Not Applicable

4.9 Risk Estimates for Ingestion of Waterfowl from Pond G, the Ditch, Lake Holloman, and Lake Stinky

Human health risks from ingesting waterfowl are presented separately in this subsection, and should be considered when evaluating the risks from exposure to sludge/soil and surface water for Ponds G, the ditch, and Lakes Holloman and Stinky. Those risk evaluations are presented separately in Sections 4.10 through 4.13.

Ducks are commonly found around all the impoundments in the sewage lagoons and lakes. However, Ponds A through F will be removed from service when the new wastewater treatment system begins service and will no longer provide habitat for the waterfowl. In addition, Ponds A through F are located within a fenced area that is manned or locked and hunters are not allowed in this area. For these reasons ingestion of waterfowl was evaluated only for Pond G, the ditch, and Lakes Holloman and Stinky. Since ducks do not live on any one impoundment, the risk estimates for duck ingestion were assumed to apply to each of these impoundments.

A great deal of uncertainty surrounds the data used to estimate health risks from ingesting waterfowl caught at the sewage lagoons and lakes. In the 1993 risk assessment the uncertainty associated with the risk estimates were due to the model used to predict chemical concentrations in duck tissue. In this addendum the uncertainty is primarily associated with the sample size of the duck tissue data collected.

In the 1993 risk assessment, actual duck tissue data were not available to estimate health risks from ingesting waterfowl. In the absence of these data a mathematical uptake model was used to predict chemical concentrations in duck tissue. Although the model provided valuable data that were otherwise not available in 1993, it had limitations. The uncertainties associated with the modeled data are:

- The model is based on an equation that was derived specifically to predict chemical uptake in cattle;
- A "feed-to-meat transfer coefficient" for cattle was used in the uptake equation since these transfer coefficients are not available for waterfowl;
- All chemicals in mallard tissue were estimated to come from the sewage lagoons and lakes assuming 100% of the mallard diet consisted of algae and water from the sewage lagoons and lakes; and
- Analytical results for PCBs, dioxins, and furans may have been biased high due to laboratory contamination as explained in Appendix D of the 1993 risk assessment report (Radian, 1993a).

Because of the uncertainties associated with modeled data, collection of duck tissue samples was conducted. Young-of-year ducks (nestlings/fledglings) were targeted for collection under the assumption that the chemicals found in their tissue would most likely come from the sewage lagoons and lakes. Although several attempts were made to capture ducks for analysis, sample collection was difficult since access to the sites where the ducks resided was limited. The U.S. Fish and Wildlife Service (FWS) was then asked to collect the ducks from the sewage lagoons and lakes. During the one-day sampling period the FWS collected one mallard (shot while flying over Pond G). Independent of this duck sampling event, the FWS had collected mature ducks and other biota samples from Holloman AFB in an earlier investigation (FWS, 1994).

Although the risk assessment data set for ducks was limited (one young-of-year mallard), it was assumed that the previously collected FWS data could also be used to compare chemical

concentrations in duck tissue, thereby providing a more valid data set from which to estimate risks. However, it was later determined that the FWS data could not be used to estimate health risks because (1) the FWS had not intended that the data be collected for use in a risk assessment (i.e., QA/QC methods selected would not be appropriate for risk assessments), and (2) only the liver and kidneys of the FWS duck samples were analyzed for chemical residues. Since the breast tissue of these ducks were not analyzed, exposure to hunters ingesting duck tissue could not be evaluated.

The uncertainties associated with the duck tissue sample data are:

- The sample size was limited;
- The estimated age of the duck caught at Pond G was 9 months. At this age the duck would be a mobile feeder and may not have utilized the sewage lagoons and lakes as its sole food source; and
- Because the duck was not a nestling/fledgling it is not known how long this mallard had resided at Holloman AFB; therefore, it is not known what fraction of the chemical residues detected in the breast tissue can be attributed to the sewage lagoons and lakes.

A comparison of the health risks estimated from actual duck tissue data and the 1993 modeled tissue values is presented in Table 4-7.

Comparison is made because of the numerous uncertainties associated with both the modeled tissue values used to estimate risks in the 1993 risk assessment, and the actual tissue data used to estimate risks in this addendum. In addition to comparing these risk estimates for adults and children, Table 4-7 also allows for a comparison of the COCs that drive the risk estimates based on the two data sets.

The risk estimates derived using the duck tissue data are discussed below for both the adult and child. The 1993 risk assessment report (Radian, 1993a) discusses the results of the modeled tissue risk evaluation.

Adult—The average cancer risk estimate for this scenario is 3E-7 and the reasonable maximum cancer risk estimate is 6E-6. Although the reasonable maximum risk estimate is greater than 1E-06, it is well within the Superfund remedial goal for carcinogens. The pathway- and chemical-specific cancer risk estimates for the new COCs found in the duck tissue are listed in Appendix G, Table G-10.

The average and reasonable maximum noncancer hazard estimates are less than 1 for both the chronic and subchronic exposure cases. The pathway- and chemical-specific noncancer hazard quotients estimated for the new COCs found in the duck tissue are listed in Appendix G, Tables G-11 and G-12 for the chronic and subchronic exposure cases, respectively.

Child—Cancer risks were not estimated for children since these estimates are based on the probability of developing cancer over a lifetime. For both chronic and subchronic exposure, the estimated average and reasonable maximum noncancer hazard index is less than 1. The pathway- and chemical-specific noncancer hazard quotients estimated for the new COCs found in duck tissue are listed in Appendix G, Tables G-13 and G-14 for the chronic and subchronic exposure cases, respectively.

Another reference point to evaluate potential risks from ingestion of waterfowl living around the sewage lagoons and lakes are acceptable residue levels allowed in foods. Table 4-8 compares the concentration levels detected in the duck sample, the concentration predicted to be in duck

Table 4-7
Comparison of Health Risk Estimates from the Ingestion of Ducks Based on Actual Tissue Samples and Modeled Tissue Values

Exposure Scenario	Duck Tissue Estimates		1993 Modeled Tissue Estimates	
	Average	Reasonable Maximum	Average	Reasonable Maximum
Ingestion of Waterfowl—Adult				
Cancer Risk	3E-7	6E-6 Risk Drivers PCBs, total (36%) 4,4'-DDE (23%) Oxychlordane (18%) Dieldrin (15%) gamma-Chlordane (4%) 4,4'-DDD (3%)	1E-7	5E-6 Risk Drivers PCBs (93%)[a] 2,3,7,8-TCDD (3%) HxDBF (3%)
Noncancer Hazard				
- Chronic	0.04	0.3	0.05	0.08
- Subchronic	0.03	0.2	0.0008	0.009
Ingestion of Waterfowl—Child				
Noncancer Hazard				
- Chronic	0.1	0.9	0.04	0.2
- Subchronic	0.08	0.5	0.003	0.03

[a] Risks from PCBs were combined in this table. The penta-, hexa-, and tetrachlorinated isomers contributed 64%, 20%, and 8%, to the total risk estimate, respectively.

HxDBF = Hexachlorodibenzofurans

Table 4-8
Comparison of Contaminant Levels Found in Duck Tissue and Modeled Estimates With Allowable Residue Levels in Foods

Cancer Risk Drivers	Reasonable Maximum Contaminant Concentrations In Duck Tissue (mg/kg)		Tolerance Levels in Foods (mg/kg) [a]
	Actual Tissue Sample	Modeled Estimate	
4,4'-DDD	0.014	0.0003	0.5 eggs [c] 5.0 meat [c]
4,4'-DDE	0.087	0.00024	
Dieldrin	0.0012	1.5E-8	0.3 [d]
gamma-Chlordane [b]	0.0038	--	0.3 [e]
Oxychlordane [b]	0.019	--	
PCBs (total)	0.006	0.00018	3.0 [f]

[a] Tolerance levels shown were obtained from the toxicological profiles prepared by the USEPA, Agency for Toxic Substances and Disease Registry (ATSDR), for each analyte shown.

[b] These analytes were not listed as COPCs in the modeled data.

[c] EPA-recommended action levels for the sum of 4,4'-DDT, 4,4'-DDE, and 4,4'-DDD residues.

[d] State of Wisconsin health standard for sport fish and the State of Illinois action level for food.

[e] FDA maximum residue levels of chlordane (including gamma- and oxychlordane) in fish and rendered animal fat.

[f] FDA residue levels for commercial poultry.

tissue based on the 1993 uptake model, and various federal and state standards for the food industry. This table clearly indicates that the chemical residues detected in duck breast tissue, for the primary COCs, are 5 to 500 times less than the allowable tolerance levels in foods. Additionally, these tolerance levels are established for commonly eaten foods such as eggs, fish, and commercial poultry. Since hunters were assumed to ingest 3 to 6 ducks in one year, it is likely that the allowable tolerance levels shown in Table 4-8 would also apply to the ducks hunted at Holloman AFB. These tolerance levels also suggest that the chemical residues in ducks taken from the sewage lagoons and lakes are not of concern to hunters who ingest them.

4.10 Pond G

The following exposure scenarios were considered at Pond G:

- Current On-site Worker
  - — Chronic
  - — Subchronic
- Current/Future Trespasser
  - — Teenager, 12-15 years old
- Current/Future Recreational—Hunters (chronic and subchronic)
  - — Adult
  - — Child

Table 4-9 presents the cancer risk and noncancer hazard estimates for the on-site worker and trespasser scenarios at Pond G. The current/future recreational scenario was discussed previously in Section 4.9 and should be considered when evaluating the total risks associated with Pond G.

On-site Worker—The cancer risk and noncancer hazard estimates for the on-site worker scenario are well below the target risk criteria. This scenario assumed that workers were exposed to soil, sludge, and surface water, during routine maintenance activities, for up to 12 days per year for 25 years.

Cancer risk estimates are based on the sum of the 1993 risk estimates and the new COCs found in the 1994 investigation. The pathway- and chemical-specific cancer risk estimates for the new COCs are listed in Appendix G, Table G-7. The noncancer hazard estimates are based on the sum of the 1993 estimates, the relative change in the 1993 estimates based on the risk ratios, and the results from the new COCs found in the sludge during the 1994 investigation. The pathway- and chemical-specific noncancer hazard quotients estimated for the new COCs are listed in Appendix G, Table G-8.

Trespasser—Only a subchronic noncancer exposure scenario was evaluated for the current/future teenager trespasser at Pond G. The estimated noncancer hazard indices for this scenario are based entirely on the new COCs found in the sludge during the 1994 investigation. The pathway- and chemical-specific noncancer hazard quotients estimated of the new COCs are presented in Appendix G, Table G-9. The noncancer hazard estimates, both average and reasonable maximum, were well below 1 and can be considered negligible.

4.11 The Ditch

The following exposure scenarios were considered at the ditch:

- Current On-site Worker
  - — Chronic
  - — Subchronic
- Current/Future Recreational—Hunters (chronic and subchronic)
  - — Adult
  - — Child

Table 4-10 presents the cancer risk and noncancer hazard estimates for the current on-site

Table 4-9
Summary of the Updated Risk Assessment Results
Pond G

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker					
(chronic)	**Cancer Risk**				
	'93 Results	5 E-10	9 E-9		
	Risk Ratios (a)	NA	NA	NA	NA
	New COPCs	6 E-12	2 E-11		
	Total	5 E-10	9 E-9		
(chronic & subchronic)					
	Hazard Index				
	'93 Results	2 E-5	6 E-5		
	Risk Ratios (a)	3 E-8	1 E-7	NA	NA
	New COPCs	3 E-7	4 E-7		
	Total	0.00002	0.00006		
Current/Future					
On-site Trespasser - Teenager					
(subchronic)	**Hazard Index**				
	'93 Results (b)	NA	NA	NA	NA
	Risk Ratios (a)	NA	NA		
	New COPCs	9 E-8	2 E-7		
	Total	9 E-8	2 E-7		

NA = Not Applicable

(a) Values shown are the "relative change in the 1993 risks" which are based on the risk ratios. Refer to Table F-28 for a complete listing of these values.

(b) Risk in this scenario were from exposure to organic lead, which is no longer a COC at Pond G.

Table 4-10
Summary of the Updated Risk Assessment Results
The Ditch

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker					
(chronic)	**Cancer Risk**				
	'93 Results	6 E-8	2 E-7		
	Risk Ratios (a)	1 E-11	2 E-10	NA	NA
	New COPCs	5 E-12	2 E-11		
	Total	6 E-8	2 E-7		
(chronic & subchronic)					
	Hazard Index				
	'93 Results	0.004	0.004		
	Risk Ratios (a)	3 E-6	8 E-6	NA	NA
	New COPCs	5 E-8	7 E-8		
	Total	0.004	0.004		

NA = Not Applicable

(a) Values shown are the "relative change in the 1993 risks" which are based on the risk ratios. Refer to Table F-34 for a complete listing of these values.

worker scenario at the ditch. The current/future recreational scenario was discussed previously in Section 4.9 and should be considered when evaluating the overall risks associated with the ditch.

On-site Worker—The risks evaluated for the current on-site worker assumed that workers are exposed to the soil, sludge, and surface water, during routine maintenance activities, for up to 12 days per year for 25 years. The total cancer risk estimates and the noncancer hazard indices are based on the sum of the 1993 risk estimates, the relative change in the 1993 estimates (based on the risk ratios), and the new COCs found in the 1994 investigation. The pathway- and chemical-specific cancer risk estimates and noncancer hazard indices for the new COCs are listed in Appendix G, Tables G-15 and G-16 respectively. The cancer risk and noncancer hazard estimates for the current on-site worker are lower than the target risk criteria.

Recreational—The current/future recreational risk estimates associated with ingesting ducks were discussed previously in Section 4.9. Although exposure to the new COCs in soil was also evaluated for hunters, this exposure pathway contributed less than 0.1% to the total risk estimates for both children and adults. The pathway- and chemical-specific cancer and noncancer risk summaries for the new COCs are listed in Appendix G, Tables G-17 through G-19, and G-20 and G-21 for adults and children respectively.

4.12 Lake Holloman

The only exposure scenario considered at Lake Holloman was the current/future recreational hunters (chronic and subchronic) for adults and children. The risks associated with ingesting waterfowl for this scenario were previously discussed in Section 4.9. Although exposure to new COCs in sludge were also evaluated for hunters, this exposure pathway contributed less than 0.1% to the total risk estimates for both children and adults. The pathway- and chemical-specific cancer and noncancer risk summaries for the new COCs are listed in Appendix G, Tables G-22 through G-24, and G-25 and G-26 for adults and children respectively.

4.13 Lake Stinky

The following exposure scenarios were considered at Lake Stinky:

- Future Beef Consumer—Agricultural
  - — Adult
  - — Child
- Current/Future Recreational—Hunters (chronic)
  - — Adult
  - — Child

Beef Consumer—Table 4-11 presents the updated cancer risk and noncancer hazard estimates for the future beef consumer scenario at Lake Stinky. This exposure scenario assumes that adults and children were exposed to constituents detected in Lake Stinky by ingesting the meat from cattle that foraged on grasses irrigated by water, and that actually drank water from Lake Stinky. Considering the salinity of the groundwater and the limited time that water is present in Lake Stinky, this is a very conservative scenario.

The cancer risk and noncancer hazard estimates for the future beef consumer scenario are based entirely on the estimates from the 1993 risk assessment. These estimates were not updated because:

- The 1993 cancer and noncancer estimates were negligible;
- Groundwater and surface water were not resampled at Lake Stinky during the 1994 investigation; and
- Chemical residue levels in groundwater and surface water are expected to be less than the levels detected in 1993 since Holloman AFB has established Base-wide

Table 4-11
Summary of the Updated Risk Assessment Results
Lake Stinky

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Future Beef Consumer					
Adult	**Cancer Risk**				
	'93 Results	7 E-9	2 E-7		
	Risk Ratios	NA	NA	NA	NA
	New COPCs	NA	NA		
	Total	7 E-9	2 E-7		
	Hazard Index				
	'93 Results	0.0002	0.001		
	Risk Ratios	NA	NA	NA	NA
	New COPCs	NA	NA		
	Total	0.0002	0.001		
Child	**Cancer Risk**	NA	NA	NA	NA
	Hazard Index				
	'93 Results	0.0004	0.003	NA	NA
	Risk Ratios	NA	NA		
	New COPCs	NA	NA		
	Total	0.0004	0.003		

NA = Not Applicable

management strategies that further reduce the introduction of chemicals into the sewage lagoons and lakes. The decrease in constituent levels has been shown over the various investigations of the sewage lagoons and lakes and is demonstrated in the *Site Characterization Report* (Radian, 1995).

Risk estimates for the current/future recreational scenario were discussed previously in Section 4.9. Although exposure to the new COCs in soil were also evaluated for hunters, this exposure pathway contributed less than 0.1% to the total risk estimates for both children and adults. The pathway- and chemical-specific cancer and noncancer risk summaries for the new COCs are listed in Appendix G, Table G-27 through G-29, and G-30 and G-31 for adults and children, respectively.

4.14 Conclusions

Based on the criteria used to evaluate potential adverse health effects to humans, cancer risk and noncancer hazard estimates are within the acceptable levels established by EPA for remediation goals at Superfund sites. The EPA target levels used in this assessment were set at 1E-6 to 1E-4 for known or suspected carcinogens, and a hazard index of 1 for noncarcinogens.

Cancer risk estimates at Ponds C, D, E, and F for all exposure scenarios are less than 1E-6. Similarly, the noncancer hazard index is less than 1 at these sites. Cancer risk estimates are slightly greater than 1E-6 at Ponds A, B, and G, the ditch, and Lakes Holloman and Stinky for the reasonable maximum exposure case only, but are well within the acceptable levels established by EPA.

The reasonable maximum cancer risk estimate at Ponds A and B is 2E-6 for the current on-site worker scenario. Although these estimates are greater than 1E-6, the lower end of the Superfund remedial goal, they are well within acceptable levels established by EPA. These estimates are driven entirely by dermal contact with the analytes detected in the sludge and/or surface water at these sites. These risks, however, will be mitigated once these sewage lagoons are removed from active service.

A reasonable maximum cancer risk of 6E-6 was estimated for adult duck hunters who ingest waterfowl caught at Pond G, the ditch, and the Lakes. PCBs and pesticides are the chemicals of concern driving these risk estimates. However, the chemical residues in the duck tissue (caught at Pond G) were detected at levels 5 to 500 times lower than federal and/or State tolerance levels for commonly eaten foods (e.g., commercial poultry). Even though cancer risk estimates of 6E-6 are within the acceptable levels established by EPA, a comparison with the federal and/or state tolerance levels suggests that the chemical residues in ducks taken from the sewage lagoons and lakes are not of concern to hunters who ingest them.

Section 5
METHODOLOGY FOR THE ECOLOGICAL RISK ASSESSMENT

In the 1993 ecological risk assessment (ERA), the risk to aquatic ecosystem health was modeled based on surface water and sediment samples, because site-specific tissue concentrations were not available. Analysis of body burden tissue and food source samples were subsequently conducted to replace the modeled 1993 ERA with an ERA based on actual body burden data collected from the sewage lagoons and lakes.

The objective of this ERA is to determine whether the contaminants in the sewage lagoons and lakes are having detrimental ecological effects. This ERA examines the following Holloman AFB impoundments: Pond G, the ditch, Lake Holloman, and Lake Stinky. Ponds A through F will be removed from service during closure, and therefore they are not addressed in this report.

This ERA focuses on the correlation of the body burden tissue data with the contaminant intake concentrations modeled from food source samples. It was performed in accordance with the following guidance documents:

- EPA. *Framework for Ecological Risk Assessment.* EPA/630/R-92/001. 1992a.
- EPA. *Risk Assessment Guidance for Superfund, Volume II Environmental Evaluation Manual.* EPA/540/1-89/001. 1989b.
- MITRE Corporation. *General Guidance for Ecological Risk Assessment at Air Force Installations.* 1990.

This ERA is based on the following assumptions:

- Physical conditions of Pond G, the ditch, Lake Holloman, and Lake Stinky will remain constant over time.
- Chemical concentrations based on the most recent investigation of the sewage lagoons and lakes will remain constant over time. This approach is conservative, since chemical concentrations have decreased significantly over time and will likely continue to decrease since that the source of contamination has been eliminated.
- Ponds A through F will undergo closure and will no longer contribute risk to the aquatic ecological system.
- No additional contamination will be added to the sewage lagoons and lakes.
- Only constituents that were detected in the sewage lagoons and lakes investigation are included in the analysis.

5.1 Assessment and Measurement Endpoints and the Quotient Method

An assessment endpoint is a quantifiable expression of the environmental value considered to be at risk. Generally, assessment endpoints have associated target species that are primary ecological receptors at a site. The measurement endpoint is a measurable response to a stressor that can be related to the environmental value chosen as the assessment endpoint (Suter, 1990). For the sewage lagoons and lakes exposure scenarios, assessment endpoints were developed by using the five criteria of Suter (1993):

- Relevance to ecology;
- Quantifiability;
- Accessability to prediction and measurement;
- Susceptibility to contaminants; and
- Relevance to society.

However, the relative weights placed on each of the criteria in selecting endpoints are unique to this site.

Ecological relevance is a primary criterion in selecting an endpoint. The ecological relevance of an assessment endpoint is determined by its importance in maintenance of the viability and production of the ecosystem as a whole. That is, an endpoint will be considered ecologically relevant if it meets other pertinent criteria (discussed below) and if risk to the endpoint significantly affects the integrity of higher levels of ecological organization and functions.

An assessment endpoint must have an unambiguous operational definition. That is, adverse effects to endpoints selected must be quantifiable. Depending on the endpoints selected, quantification of effects may be numerical (e.g., 20% reduction in age-specific reproductive rates) or simply indicators of the direction of change in the assessment endpoint parameter in question (e.g., a decrease in population size). The assessment endpoint chosen for the aquatic ecosystem at Holloman AFB is the decrease in the survivorship and productivity of selected aquatic food chains in the sewage lagoons and lakes. Food chains were selected that represent dominant components of the aquatic system trophic structure that possess a high potential for exposure to contaminants.

Assessment endpoints must be quantifiable responses to exposures to contaminant exposures. Measurement endpoints are the results of studies or tests that quantify these responses. Although investigative field studies using such measurement endpoints as egg hatchability, observed health effects, or population changes would be the best estimate of the selected assessment endpoint, a study of this magnitude is not warranted or feasible at this time based on a review of currently available studies and observations at the site (i.e., inhabitants of the ecosystem appear healthy and unstressed). Instead, an indirect estimate of the potential impact to survivorship and productivity, the assessment endpoint, is made by calculating an ecological quotient (EQ). The EQ is based on the comparison of a dose or intake concentration to the measurement endpoint for each constituent.

EQs are a quantitative method of evaluating ecological effects. The "quotient method" (Barnhouse et al., 1982 and Urban and Cook, 1986) is used to arithmetically compare a measurement endpoint (ME) modified by an uncertainty factor (UF) with the calculated intake concentration (I) for each constituent by calculating an EQ of the general form:

$$EQ = I / (ME \times UF).$$

In general, if an EQ is less than 1.0, an adverse effect to the ecosystem is unlikely to occur. Because conservative assumptions and methodologies are used in the calculations, EQs exceeding 1.0 do not necessarily indicate that an impact is expected to occur, and sometimes may overestimate risk. Each EQ greater than 1.0 is evaluated on a case-by-case basis for bioaccumulation potential, contaminant availability, and ecosystem sensitivity to better evaluate the possibilities and probabilities of the occurrence of adverse effects.

For this ERA, the lowest-observed-adverse-effects-levels (LOAELs) for mortality or reproductive effects were the toxicity data used as measurement endpoints. The LOAEL data were taken from available literature for those species used as assessment endpoint species. When toxicity data were not available for these species, toxicity data were used from surrogate species that are similar physiologically and in life history patterns to the assessment endpoint species. Uncertainty factors were applied to ensure that the measurement endpoints were adequately conservative when surrogate species were used.

Assessment endpoints that meet the susceptibility to contaminants criterion were chosen. The home range size of assessment endpoint species, seasonality, and foraging behavior are among the parameters evaluated to determine susceptibility.

The societal relevance criterion addresses the public's understanding and value of the assessment endpoints. This is a controversial criterion; however, it is a criterion that should be considered because it may strongly influence potential corrective action decisions. The waterfowl
present at the sewage lagoons are of recreational value to birdwatchers and hunters. Fish are of minimal societal value because the only fish present are mosquito fish which were introduced to the sewage lagoons for mosquito control but are too small to be caught for recreational purposes.

5.2 Ecological Characterization

Information on climate, soils, surface water, groundwater, and geology are fully described in the 1993 risk assessment report (Radian, 1993a); however, pertinent information is summarized here. The sewage lagoons and lakes are located in the Tularosa Basin and the biological diversity is characteristic of a desert region. Surface water resources are limited in the Tularosa Basin, owing to high evaporation rates and a low annual rainfall of approximately 7.9 in./year. Because of this, these surface water impoundments may be the most significant aquatic resources within at least a 20-mile radius of the area. Groundwater in the area comes from one of the largest saline saturated zones in the United States. The surface water in the sewage lagoons, the ditch, and the lakes is also saline. Plant and animal life in the area is well documented in the 1993 risk assessment report as well as in the Draft Biological Resources Report (Radian and Foster Wheeler, 1995c).

During the summer of 1991 the U.S. Fish and Wildlife Service (FWS) conducted an investigation at the sewage lagoons and Lake Holloman to determine whether migratory birds were being exposed to organic and inorganic constituents potentially present in the impoundments. Eleven sediment, one surface water, and thirty-five biological samples were collected from various locations within the impoundments. These samples were assayed for various metals, metalloids, and organic compounds. The intent of this investigation was not to collect data for use in an ecological risk assessment, but to provide a preliminary assessment of whether the impoundments were affecting the ecosystem. Because analytical QA/QC documentation is not available, this data will not be included in assessing the ecological risks from the sewage lagoons and lakes. The draft report that presents the data was prepared in January 1994, and is entitled *Preliminary Survey of Contaminants Present in Biota, Pore-Water and Sediments at the Holloman AFB Waste Water Treatment Facility* (FWS, 1994). No specific conclusions were drawn in this report.

To fully characterize risks to the ecosystem, two approaches were used to evaluate the data:

1) Screening evaluation using food uptake modeled from food source samples collected; and

2) Evaluation using body burden tissue data collected by Holloman AFB in 1993.

Figure 5-1 presents a summary of the methodology. The first method uses an uptake model based on concentrations in food sources to determine contaminant concentrations in each of the assessment endpoint species. Contaminant concentrations in food sources, as well as surface water and sludge, are carried through the model

EQ Calculations					
	SALAMANDERS[1]	MERGANSER[2]	MALLARD	SHOREBIRDS	FISH
MODELED	NA	X	X	X (Killdeer)	NA
BIOLOGICAL DATA	X	NA	X	X (Stilt)	X

1. Salamanders not included in trophic structure.
2. Merganser EQ's modeled from modeled fish intake and biological fish data (see below), no tissue data was available.
3. NA - Data not available

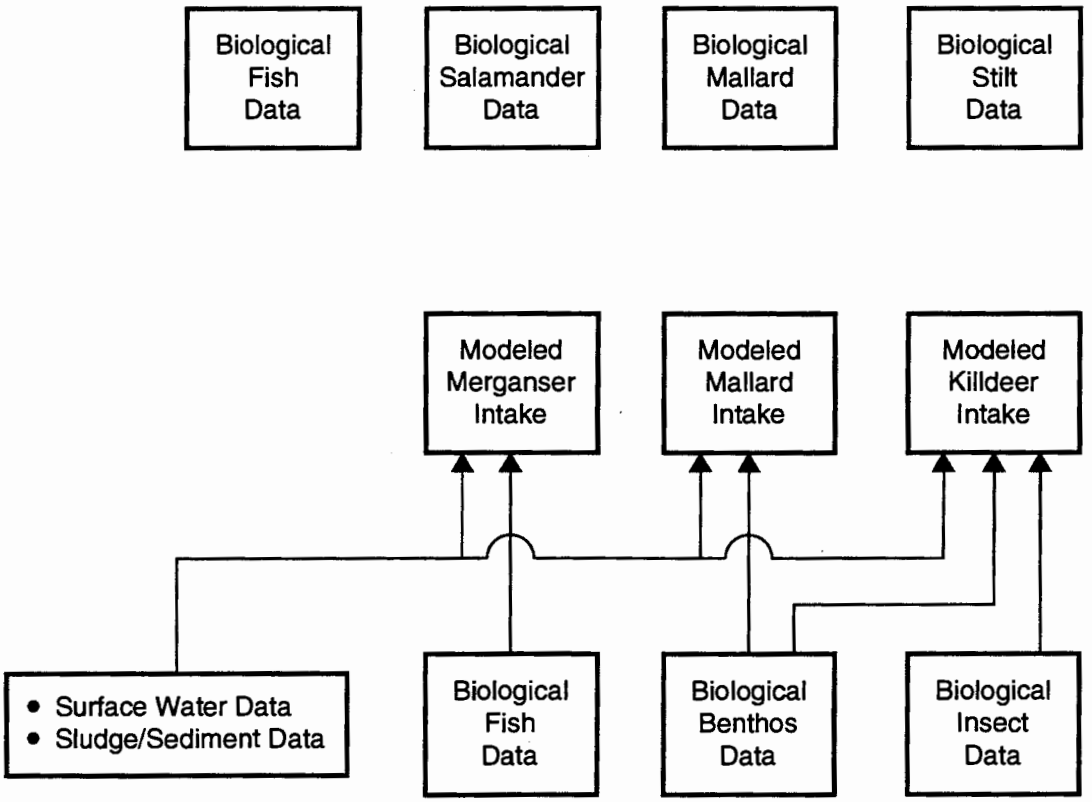


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Figure 5-1. Methodology for Ecological Risk Assessment

and resulting concentrations in the endpoint species are estimated.

The modeled concentrations are then compared with the measurement endpoints. A screening evaluation provides a conservative estimate of potential adverse impacts. Because the screen is very conservative and site-specific tissue concentrations of assessment endpoint species were available, additional evaluation using actual body burden samples was conducted. These data provide tissue concentrations for each of the trophic levels and are considered to be used best as confirmatory evidence for the chemicals of potential ecological concern (COPECs) that were modeled, because of data limitations (i.e., one duck sampled). Concentrations in tissue samples from the different trophic levels provide information concerning the movement of individual contaminants into each segment of the food chain. However, very small sample sizes, as well as uncertainty associated with the analytical data and the representativeness of the samples, suggest that these data are best used in conjunction with the uptake model rather than in place of the model. Both approaches are defined in Section 5.4.3.

5.3 Identification of Chemicals of Potential Ecological Concern

Sampling of surface water, soil, sludge, sediment, and groundwater has been conducted at the sewage lagoons and lakes. Also, biological samples consisting of algae, benthos, insects, fish, grass, salamander, black-necked stilt, and a duck have been collected. Table 5-1 describes the types of site-specific samples collected at each impoundment evaluated in the ERA.

All inorganic constituents (i.e., metals) detected in the soil/sludge and surface water samples were first compared to the previously designated upper tolerance limit (UTL) for soil background concentrations at Holloman AFB and ambient water quality criteria (AWQC), respectively. UTLs are likely conservative for the lakes because inorganic constituents naturally accumulate in playa lakes due to evaporation. If both soil/sludge and surface water samples were analyzed for a constituent, and if the maximum detected concentrations for the constituent in an impoundment were less than the UTL and AWQC, then that constituent was eliminated from further risk evaluation. If surface water was not analyzed for a constituent, the constituent was eliminated if the maximum concentration in soil/sludge was below the background UTL.

Some of the metals that were reported with the biological data received from the laboratory are essential elements and often are naturally present in the soil. Because these essential elements are only harmful in extremely high concentrations, they are not typically carried through a risk evaluation. Also, the focus of the closure investigation for the sewage lagoons and lakes is the Appendix IX constituents (as specified in 40 CFR 265, Appendix IX) previously approved by the New Mexico Environment Department (NMED). Boron, calcium, iron, magnesium, manganese, potassium, silicon, and sodium were not evaluated as part of this ERA because none of these metals are Appendix IX constituents and many of them are also essential elements.

Table 5-2 lists those constituents (with the exception of essential elements) removed from risk evaluation for each of the impoundments. The remaining constituents detected at each impoundment were considered as COPECs and were carried through a screening evaluation to determine the chemical-specific EQs.

For the COPECs detected in nonbiological media, food intake concentrations for birds were modeled from surface water, sediment/sludge, benthos, and insect data (see Figure 5-1). Tables G-32 through G-35 in Appendix G list COPECs

Table 5-1
Samples Collected for the Ecological Risk Assessment

Specimen	Pond G	The Ditch	Lake Holloman	Lake Stinky
Algae/Benthos/Nekton	X	X	X	X
Fish (*Gambusia*)	X	X	X	
Insects/Invertebrates	X	X		X
Widgeon Grass[a]				X
Salamanders	X			
Black-necked stilt[b,c]				
Duck[b]	X			
Surface water	X	X	X	X
Sediment/Sludge	X	X	X	X

[a] Widgeon grass is a pond weed that is normally found in saline waters. It is almost completely submerged under the surface of the water.

[b] These samples are assumed representative for the entire sewage lagoons and lakes because these species are not confined to a single impoundment.

[c] The black-necked stilt was collected from an area around Pond C; however, for this ecological risk assessment it is assumed that these data are representative of all sewage lagoons and lakes.

Table 5-2
Constituents Eliminated From the Risk Evaluation

Constituent	Pond G	The Ditch	Lake Holloman	Lake Stinky	Reason
Arsenic	x		x	x	Background[a]
Boron	x	x	x	x	Not App IX[b]
Cadmium		x			Background[a]
Lead				x	Background[a]
Manganese	x	x	x	x	Not App IX[b]
Selenium	x	x	x	x	Background[a]
Silicon	x	x	x	x	Not App IX[b]
Thallium	x	x	x	x	Background[a]

[a] These constituents were not detected in surface water or sludge/soil at levels greater than background and were subsequently eliminated from further evaluation.

[b] These constituents are not Appendix IX constituents and were subsequently eliminated from the risk evaluation.

and their respective media-specific UCLs for each impoundment.

Some contaminants were detected in the body burden tissue samples that were not identified in the surface water or sediment/sludge at Holloman AFB. Although many of these contaminants were estimated at concentrations below the detection limit, their presence was still investigated. There are several possible explanations for the appearance of these constituents in tissue, but not in environmental media. They include:

- Exposure of the assessment endpoint species to these compounds could have occurred from another source not present at Holloman AFB. However, this is unlikely for the algae and benthic organisms owing to lack of mobility.
- Laboratory analysis of the sludge was difficult because of matrix interferences. Small concentrations of analytes, although detectable by the analytical instrument, were not successfully extracted from the sludge and therefore were not detected. Extraction of analytes from the biological samples was efficient with little matrix interference, therefore presenting a more complete analytical assessment.
- Concentrations of some analytes may have occurred in the biological species analyzed (i.e., through bioconcentration), therefore allowing detection by analytical instruments. Prior to incorporation in the food chain, contaminants in the surface water or sediment, may be at nondetectable levels.

The appearance of these contaminants in biological tissue, but not in surface water or sediment, is most likely a combination of all three of the above factors.

Owing to the small number of samples for some of the media at some of the impoundments (insects at the ditch, benthic organisms at Pond G, mallard tissue samples and widgeon grass), upper confidence levels could not be calculated; maximum detected concentrations were used in these cases. For all other samples, the 95% upper confidence limits were calculated and used in the assessment. Proxy values were calculated for nondetectable concentrations by using a random number between zero and the lesser of the minimum detected concentration or the detection limit as described in "Contaminant Data Containing Concentrations Below the Limit of Detection", *Journal of Air and Waste Management Association*, 1991.

The sampling materials and methods were outlined in the 1993 risk assessment report (Radian, 1993a) for all of the soil and water samples and most of the biological samples, with the exception of stilt, duck, and additional algae and invertebrate samples. The duck was shot with a .22 caliber rifle and the black-necked stilts were captured by placing a net over them. The black-necked stilts were young-of-the-year (less than two weeks old), indicating that they had never lived outside the sewage lagoons and lakes area. The duck was estimated to be approximately 9 months old and may have lived part of its life outside the sewage lagoons and lakes area. Section 5.4.2 describes the habits of mallards.

5.4 Exposure Assessment

This section describes the potential pathways by which wildlife could be exposed to the contamination reported in soil, sludge, sediment, and surface water in and around Pond G, the ditch, Lake Holloman, and Lake Stinky, which are expected to remain in use. The other impoundments will be closed, which will eliminate ecological risk from the impoundments. Assessment endpoint species are selected for

further evaluation on the basis of the ecological significance of local species and the nature of contamination. The exposure assessment presents the methods used to calculate the chemical concentrations in food sources to which the assessment endpoint species may be exposed, or the amount that may enter the animal's body.

5.4.1 Identification of Potential Exposure Pathways

Wildlife can be exposed to the COPECs by the following direct and indirect pathways:

- Incidental ingestion of surface soil, sediment, or sludge;
- Dermal contact with surface soil, surface water, sediment, or sludge;
- Ingestion of contaminated vegetation;
- Ingestion of contaminated surface water; and
- Ingestion of animals that have been exposed to contaminated media.

The main pathways of concern at the sewage lagoons and lakes are ingestion of food, water, and sediment/sludge. Although dermal contact with water and sediment/sludge occurs, the extent is difficult to quantify and the risk is most likely insignificant compared with the ingestion pathway. Volatile compounds were not identified as COPECs, therefore excluding the inhalation pathway.

5.4.2 Selection of Assessment Endpoint Species

Assessment endpoint species were selected because evaluating potential effects on all species that occur in the area is not feasible. The criteria used for selecting assessment endpoint species included:

- Species that regularly occur at Holloman AFB (e.g., killdeer, merganser, black-necked stilt, mallard, mosquito fish);
- Endangered or threatened species;
- Species with economic or recreational value (e.g., mallard); and
- Species whose behavioral patterns or habitat preferences may expose them to COPECs.

Assessment endpoint species were chosen to represent the trophic levels in the aquatic food chain. Figure 5-2 displays the primary food chains seen at the sewage lagoons and lakes. Benthic organisms were used to represent the lowest trophic levels as primary producers. Killdeer, mosquito fish, and mallards represent the primary consumer trophic level. Mergansers represent secondary consumers because they consume mosquito fish that have been exposed to, and fed on, algae, plankton, surface water, and sludge/ sediment.

Because the original source of potential contamination was discharged directly to the sewage lagoons, the aquatic food chains are likely to be more severely impacted than the terrestrial food chains. The *Draft Biological Resources Report* (Radian and Foster Wheeler, 1995c) specifically addresses the threatened or endangered species located in the sewage lagoons and lakes area; therefore no threatened or endangered species were selected for this ERA. The assessment endpoint species chosen represent species directly related to the surface water and sludge/sediment. The home range for each of the assessment endpoint species is considered to be the entire area of the sewage lagoons and lakes that will remain open, because the sewage lagoons and lakes represent a unique habitat in this desert region and because they are all interconnected. The merganser, mallard, killdeer, and mosquito fish were selected as assessment endpoint species for the 1993 ERA (Radian, 1993a) and were retained as the assessment endpoint species in the modeling phase of this ERA. For the body burden aspect, black-necked stilts were used in place of killdeer

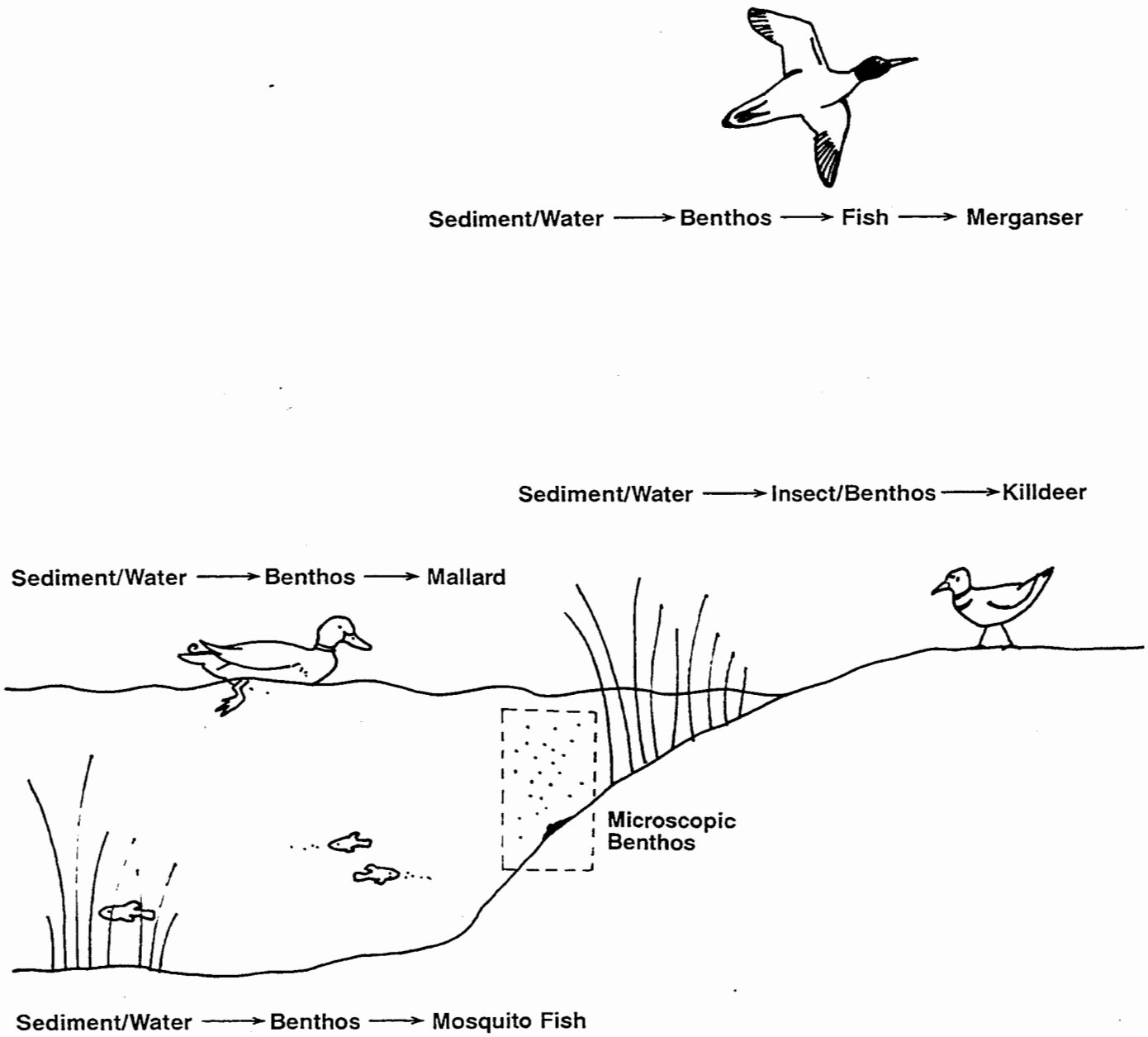

Figure 5-2. Trophic Levels of the Sewage Lagoons and Lakes

because of sample availability; they are considered to be comparable in size and intake. Species-specific information is presented below.

For purposes of this ERA, the home range for waterfowl is assumed to be 240 acres or the area that encompasses Pond G, the ditch, Lake Holloman, and Lake Stinky. This area also represents the foraging range since the sewage lagoons represent a unique habitat in the surrounding desert region. Therefore, in effect, this area would be the home range and foraging range of any water birds inhabiting the area.

Killdeer (*Charadrius vociferus*)

Killdeer, commonly known as plovers, are widely distributed throughout the world. In summer, they frequent sparse bare upland regions, plowed fields and pastureland, and occasionally short-turfed lawns in close proximity to busy roads and buildings. For the rest of the year, they are found along marshy borders of lakes and pools, or along the seashore. Most northern hemisphere plovers migrate southward during the winter, some reaching as far south as Tierra del Fuego, South Africa, and Australia. They are largely insectivorous, eating grass hoppers, beetles, locusts, crane-fly larvae, and caterpillars. They will also eat earthworms, snails, spiders, small crabs, and some vegetable matter. Most of them pick up food at the waterside, either from the surface of the water or mud, or by probing in the mud and sand. All species feed by running in short bursts and darting at the prey.

Killdeer breed during the spring and early summer. Most nest in the open on beaches, grasslands, tundra, gravelly shorelines, or stony deserts. The clutch is four eggs in nearly all northern hemisphere species.

Killdeer were retained as assessment endpoint species for this ERA because of their prevalence throughout Holloman AFB. They are year-round residents and are therefore more likely to be affected by any contamination in the sewage lagoon system. The home range for killdeer varies according to availability of food and water. Because there are no other suitable habitats in the area for killdeer, it is assumed that 100% of their time is spent in the sewage lagoons and lakes. This area is approximately 240 acres. It is unlikely that killdeer spend their entire lifespan at a single impoundment. However, to assess the worst-case scenario, each impoundment is evaluated as an individual system and the risks are evaluated assuming 100% of their food and water is from a single impoundment. The results of this comparison are presented in Section 6.

For the purposes of this assessment, it is assumed that killdeer feed on insects and benthic organisms (Figure 5-1). Concentrations in insects and benthic organisms are used as the starting point for the model. Movement of contaminants up the food chain is modeled using surface water and sediment/sludge as well as insects and benthic organisms to calculate final concentrations in killdeer. Body burden samples of killdeer tissue are not available. Black-necked stilts are used in the place of killdeer to represent the trophic level for the body burden aspect of the ERA.

Black-Necked Stilts (*Himantopus mexicanus*)

The black-necked stilt is a member of the family *Recurvirostridae*. These birds are waders with long legs and slender bills, and feed mainly on insects and crustaceans.

The black-necked stilt is a large slim bird measuring 13-17 inches. The stilt winters mainly south of the United States, but can be found in the west and southeast United States. Likely habitats for the stilt include grassy marshes, mud flats, pools, and shallow lakes (Peterson, 1980).

For this ERA, black-necked stilt body burden tissue samples are used to confirm modeled intake for killdeer.

Mallards (***Anas platyrhynchos***) Surface-feeding ducks are the most familiar ducks of freshwater and saltwater wetlands. They feed by dabbling and tipping up in shallow water, often filtering through soft mud for food. They feed primarily on seeds of aquatic plants and cultivated grains, although they consume aquatic invertebrates, particularly during the breeding season. The mallard feeds mostly on aquatic plants, seeds, and aquatic invertebrates, depending on the season, and forages in ponds and wetlands by dabbling and filtering through sediments (EPA, 1993b). They are generally found in ponds, lakes, and marshes, although semidomestic birds can be found on almost any body of water (Audubon Society, 1977).

Mallards were used as assessment endpoint species in this ERA because of their prevalence at the site. They are also a target of recreational hunters and are thus of recreational value around Holloman AFB.

Adult mallards feed predominantly on vegetative materials. For the modeling aspect of this ERA, it is assumed that they feed 100% on organisms, such as phytoplankton, zooplankton, and mosquito larvae. Biological samples for these organisms were combined to represent the food source for mallards. (For the purposes of this ERA these organisms are combined with benthic organisms.) Because sediments may be a significant source for bioconcentratable chemicals, the intake equation also factors in a fraction of sediment/sludge ingested. The concentrations of COPECs in this combination were used to model uptake through the trophic chain into the mallard. Risks were calculated for each impoundment assuming 100% of their intake from each individual body of water. This conservative estimate of risk better identifies the areas that are contributing to risk from the sewage lagoons and lakes. The home range for mallards varies according to habitat and availability of food and water. It is assumed that 100% of the time spent at Holloman AFB is spent in this area and that mallards spend a maximum of seven months per year at Holloman AFB.

The body burden data for ducks consist of four samples taken from a single mallard. Because the sample size consisted of a single duck that may not have lived its entire life at Holloman AFB, the body burden EQs are most reliable when considered in conjunction with the modeled EQs. These samples were used for comparison with and confirmation of the modeled duck concentrations. The concentrations in duck tissue are not directly comparable to the measurement endpoints. The methodology for converting the tissue concentrations to comparable intakes is presented in Section 5.4.3.

Common Mergansers (***Mergus merganser***)

The common merganser can be found more often than other members of their genus in North America and Eurasia. They are widespread over the Northern Hemisphere, inhabiting Canada and the northern portions of the United States, central California, Arizona, and New Mexico. The common mergansers are the largest of all inland ducks in North America and are usually seen on fresh water, but occasionally locate themselves on the brackish waters of bays and inlets. Mergansers often nest in open cavities of trees near the water, on the ground in bulky masses of weeds, and under low bushes. The nests are lined with weeds, grasses, rootlets, and down from the female's breast. It is in these cavities that usually 9-12 eggs are laid every year during the months of May and June. Mergansers are fish-eating ducks and rarely occur in sizable flocks. They can also feed on crayfish and some amphibians (Ransom, 1981).

Mergansers were chosen as the assessment endpoint species for their trophic level because they have been known to frequent the sewage lagoons and lakes. Mergansers are predators that feed on the mosquito fish (Gambusia) present in the impoundments.

Merganser intake was calculated using actual fish tissue concentrations. Because sediments can be a significant source for bioconcentratable constituents, a factor is included in the equation to account for the fraction of soil/sediment ingested in the diet. The actual home range for the merganser is dependent upon food and water availability. For the ERA, Pond G, the ditch, Lake Holloman, and Lake Stinky (approximately 240 acres total) are considered to be the home range due to the absence of significant additional habitats within approximately 20 miles. EQs for the merganser were calculated for individual impoundments assuming 100% of their food and water intake from each water body, providing a conservative evaluation of impacts. Mergansers are migratory, spending less than seven months at Holloman AFB. Because Lake Stinky dries up each year and supports few fish during the time that it contains water, it was not considered a suitable habitat for mergansers. Therefore, risks to mergansers were not calculated for Lake Stinky. The ditch is also not a suitable habitat for mergansers due to vegetative cover; however, since mosquito fish are present, mergansers were evaluated using data collected from the ditch. Because body burden samples were not collected for the merganser, risk estimates could not be calculated based on tissue concentrations for comparison with the modeling results.

Mosquito Fish *(Gambusia affinis)*

The mosquito fish is a member of the *Poecidliidae* family, which contains live-bearing toothed carps (guppies, mollies, platys, swordtails, and others). These fish are found primarily in the warmer parts of North and South America. *Gambusia affinis* are referred to as mosquito fish because of their habit of feeding on insect larvae close to the water's surface. Mosquito fish from the southern United States were introduced to aid in insect control. Many fish in this order can withstand salt water and are found in estuarine or even marine environments (Bond, 1979).

Mosquito fish were introduced to Pond G and the ditch for mosquito control and have migrated to Lake Holloman. No native fish are present. Mosquito fish are present because of their ability to tolerate the salinity of the water found in these impoundments. They are used in this ERA to represent their trophic level and as the primary food source for the mergansers.

Body burden samples were collected and used to determine COPECs in fish. Because the sample size for fish was larger than the sample size for the bird data, the fish tissue concentrations are considered to provide a more reliable estimate of chemical concentrations in fish due to a more representative sample set. To compare the tissue concentrations in fish with the measurement endpoints that were expressed in daily doses, the measurement endpoints were converted to tissue concentrations by adjusting for bioconcentration. The bioconcentration factors (BCFs) used for each chemical are documented in the spreadsheets in Appendix G and the toxicity profiles in Appendix H.

5.4.3 Quantification of Exposure

This section describes the methods and assumptions used to quantify exposure, using both the body burden data and the modeled uptake. Exposure quantification considers the environmental fate of the contaminants, food chain interactions (including bioaccumulation potential), magnitude and frequency of assessment endpoint species exposure, and seasonal variations. Intake represents the amount of body burden, including intake of each COPEC for each assessment

endpoint species. Daily doses, selected measurement endpoints, and uncertainty factors are presented in Appendix G, Tables G-36 through G-43 for both the body burden data and the uptake models. Measurement endpoints and uncertainty factors are identical for both the body burden samples and the modeled uptake.

Assessment of Body Burden Data

Available toxicological information were obtained from toxicity dose studies. Theoretically, a dose could be converted to a tissue concentration. However, in order to do this, mathematical models for all physiological processes involved in metabolizing and absorbing contaminants into tissues would be required. In the body burden data assessment, tissue concentrations were compared with the measurement endpoints. Because the concentrations in tissue represent the accumulation of contaminants over an entire lifetime, they cannot be directly compared with a dose. However, for comparative purposes only, tissue concentrations were converted to daily intakes by dividing the concentration in the tissue by the estimated lifespan for the species at the time it was sacrificed. Converting a tissue concentration to a daily intake in this manner has a large amount of uncertainty that increases as the age of the animal increases. Therefore this exercise is best performed with very young animals. The mallard was estimated to be nine months old and the stilts were estimated to be approximately two weeks old.

Concentrations in mosquito fish tissue also cannot be directly compared with measurement endpoints. Because measurement endpoints in fish are generally presented as the concentration in water that is likely to cause a given adverse effect in the fish, the endpoints were multiplied by bioconcentration factors (BCFs). BCFs are ratios of the concentration of the chemical in tissue to the concentration in the surrounding media. BCFs vary widely depending largely on the lipid content of the organism, sediment and water properties, and chemical properties. Chemical-specific BCFs were located for each of the COPECs.

Although tissue samples are also available for benthic organisms, insects, salamanders, and widgeon grass, relevant measurement endpoints for direct comparison were not available for these species. The applicable data from these species were used in the overall trophic structure for this ERA as well as in identifying contaminants that may be bioconcentrating in the food chain. The statistical information and results from the analysis of these samples are presented in Appendix G, Tables G-44 through G-47.

Intake Assessment for Modeling Uptake

Table 5-3 presents the intake equation and avian assessment endpoint species-specific factors used for this ERA. To model the movement of chemical concentrations up the food chain, daily food intakes from each of the contaminated food sources and media must be quantified. Intake rates of food sources including benthos, mosquito fish, sludge/sediment, and water were calculated in mg/kg/day for each contaminant of concern, as shown in Table 5-3.

Food and water ingestion rates specific to the species were used whenever possible; otherwise, the *Wildlife Exposure Factors Handbook* (EPA, 1993b) was used. The food intake that is required for a bird in order to meet its metabolic needs is represented by an allometric regression equation. This equation describes the amount of food required to support the metabolic rate of an animal as a function of its body weight.

Water intake rates depend on the rate at which animals lose water to the environment from evaporation and excretion. Loss rates depend on body size, ambient temperature, and physiological adaptations for conserving water. The allometric regression equation for the water intake rate was

Table 5-3
Intake Equation and Parameters for Avian Assessment Endpoint Species

Intake (mg/kg/day) =

$$\frac{[SF \times B \times ((IR_f \times IF_{fish} \times C_{fish}) + (IR_f \times IF_{bo} \times C_{bo}) + (IR_f \times IF_{insects} \times C_{insects}) + (IR_f \times IF_{soil} \times C_{soil}) + (IR_w \times C_{water}))]}{BW}$$

Parameter	Assessment Endpoint Species Factors			Definition
	Killdeer	Mallard	Merganser	
SF (unitless)	100%[a]	58.3%[b]	58.3%[b]	Fraction ingested from contaminated source.
B (unitless)	100%	100%	100%	Bioavailability to be 100% since gut absorption values in wildlife are generally not available.
IR_f (kg dry wt/day)	0.013	0.061	0.083	Food ingestion rate based upon body weight ($=0.0582BW^{0.0651}$), (EPA, 1993b and Nagy 1987).
IF_{fish} (unitless)	0%	0%	98%[c]	Fraction of diet made up of fish. The merganser is the primary consumer of fish in this system.
IF_{bo} (unitless)	42.7%	96.6%	0%	Fraction of diet made up of benthic organisms. Killdeer and mallards consume benthics.
$IF_{insects}$ (unitless)	50%	0%	0%	Fraction of diet made up of insects. The killdeer's diet is partially made up of insects.
IF_{soil} (unitless)	7.3%	3.3%	2%	Species specific fraction of soil/sediment/sludge obtained through incidental ingestion (Beyer, et al., 1994).
IR_w (L/day)	0.01	0.0622	0.084	Water ingestion rate based upon body weight ($=0.059BW^{0.67}$), (EPA, 1993b and Nagy, 1987).
C_{fish} (mg/kg)[d]	-	-	-	Contaminant concentration in fish. See Appendix G for the actual concentrations.
C_{bo} (mg/kg)[d]	-	-	-	Contaminant concentration in benthic organisms. See Appendix G for the actual concentrations.
$C_{insects}$ (mg/kg)[d]	-	-	-	Contaminant concentration in insects. See Appendix G for the actual concentrations.
$C_{soil/sediment}$ (mg/kg)[d]	-	-	-	Contaminant concentrations in soil, sediment, or sludge depending on available samples.
C_{water} (mg/L)[d]	-	-	-	Contaminant concentrations in surface water (where available).
BW (kg)	0.101	1.082	1.709	Body weight (Dunning, 1993).

[a] Killdeer are conservatively assumed to get 100% of their food and water at the sewage lagoons and lakes.

[b] Mallard and mergansers are migratory waterfowl. The source fraction is based upon a conservative assumption of a seven month residence time.

[c] Mergansers are fish eating ducks. Fish are considered to be their primary food source.

[d] Contaminant concentrations are impoundment specific.

also taken from the *Wildlife Exposure Factors Handbook* (EPA, 1993b).

The species-specific factors used in the uptake model for each of the avian assessment endpoint species are listed in Table 5-3.

5.5 Toxicity Assessment

Unlike a human health risk assessment in which reference doses and slope factors are available for most chemicals of concern, established toxicity values are not readily available for most of the COPECs on a species-specific basis. Available literature was reviewed to identify the toxic effects of the COPECs to fish and wildlife. In cases where cumulative reviews were already completed, the data in these reports were used to a large degree. Not all of the COPECs have been researched to the same extent. The sections below outline the criteria used in determining the measurement endpoints for this ERA and the uncertainties associated with them.

5.5.1 Selection of Measurement Endpoints

To determine whether the assessment endpoint species are likely to be significantly affected by COPECs in the sewage lagoons and lakes remaining open after closure, measurement endpoints that are ecologically relevant must be defined. For the purposes of this ERA, the measurement endpoints were LOAEL toxicological studies showing the occurrence of adverse effects that would reduce assessment endpoint species survivorship and productivity (e.g., LOAELs with effects such as decreased eggshell thickness or reduced survivability).

The search focused on chronic toxicity studies of mortality or reproductive effects via food ingestion. When LOAEL studies were not available the median lethal dose (LD_{50}), the median lethal concentration (LC_{50}), or the no observed adverse effect level (NOAEL) was selected. Measurement endpoints were selected from searches of the TOXNET, TOXLINE, and Hazardous Substances Data Base (HSDB), the Registry of Toxic Effects of Chemical Substances (RTECS) databases, and available literature. An ecological toxicity profile for each COPEC is presented in Appendix H.

5.5.2 Uncertainty Factors

Because the precise measurement endpoint for each assessment endpoint species was not always available, it is necessary to adjust the endpoint by applying uncertainty factors (UFs) to ensure that the measurement endpoint is adequately conservative. UFs are intentional biases used to ensure that uncertainties in the measurement endpoints do not result in underestimation of potential impacts. The selected measurement endpoints are divided by these factors to produce a more conservative endpoint. Comparison of the physiology and life history patterns are made in addition to direct taxonomic comparison between the measurement endpoint species and the assessment endpoint species to address uncertainty. As discussed below, when the available data are obtained from an acute rather than a chronic study, a factor of 10 is applied to the uncertainty. If LOAELs are not available for a contaminant, the next preferred form of toxicity data was an LD_{50}, an LC_{50}, or a NOAEL. LD_{50} and LC_{50} data were also modified by an uncertainty factor of 10 and NOAEL data were modified by a factor of 0.1. Additional uncertainty factors were derived after considering approaches from both *Performing Ecological Risk Assessments* (Calabrese and Baldwin, 1993), and the *Final Integrated Endangerment Assessment/Risk Characterization Version 4.2* (Ebasco, 1994), and after conversations with Jeff Yurk of EPA Region VI. They include:

- Application of a measurement endpoint from a genera within the same family as the assessment endpoint species (5);

- Application of a measurement endpoint from a family within the same order as the assessment endpoint species (10); and
- Application of a measurement endpoint from an order within the same class as the assessment endpoint species (15).

Measurement endpoints were not extrapolated across taxonomic classes. For this ERA, the UF never exceeded 150.

5.5.3 Ecological Quotients for the Assessment Endpoint Species

Intakes calculated for both the body burden data and the modeled concentrations were compared with chemical-specific measurement endpoints through the quotient method. These intakes for the assessment endpoint species at each location were compared with each of the measurement endpoints modified by uncertainty factors as described below:

Fish:
Ecological Quotient =
Tissue Concentration/Measurement Endpoint

Measurement Endpoint =
(Toxicity Data/Uncertainty Factor) x
(Bioconcentration Factor)

Bird:
Ecological Quotient =
Daily Intake/Measurement Endpoint

Measurement Endpoint =
Toxicity Data/Uncertainty Factor

The ratio of these values is the EQ as discussed in Section 5.1. An EQ less than or equal to 1.0 indicates that the critical effect is unlikely to occur. An EQ greater than 1.0 indicates that a critical effect is possible. Because of the conservative methodology used in the ERA, an EQ that exceeds 1.0 does not necessarily indicate that a critical effect will occur. EQs are not risk numbers, but rather indicators of possible impacts to assessment endpoint species. EQs were used to assess potential critical effects for both the body burden tissue samples and the modeled uptakes. Those COPECs with an EQ greater than 1.0 are then defined as possible chemicals of ecological concern (COEC) and only these constituents are evaluated further for risks to the ecosystem. Table 5-4 presents the COECs and their possible critical effects for the assessment endpoint species.

Ecological quotients were not summed for any of the assessment endpoint species. Unlike human health risk assessments where hazard quotients are summed for chemicals that affect the same target organ, measurement endpoints for this ERA were selected on the basis of population effects. These effects can be caused by a number of different mechanisms (e.g., eggshell thinness, decreased litter size, reproductive effects, etc.). Because the mechanisms vary, additive effects from different chemicals cannot be assessed; therefore, EQs were not added to represent multichemical effects. Because the field of ERA is relatively new compared to human health risk assessment, studies that assess multichemical effects are rare.

Ecological quotients are screening numbers meant to give an estimation of possible impacts within an order of magnitude. If the sum of all EQs for a species at an impoundment exceeds 1.0, it indicates that the individual constituents should be examined to determine which specific chemicals are posing potential risk. In this ERA, specific chemicals were evaluated for each species at each impoundment.

Because the same measurement endpoints and UFs were used for both the body burden data and the modeled data, the EQs for both methods combine to give the best indication of possible

Table 5-4
Critical Effects for COECs at Holloman AFB

Chemical	Assessment Endpoint Species	Critical Effects
2,4'-DDD	Mosquito Fish	Not specified[a]
4,4'-DDT	Mosquito Fish	Not specified[a]
4,4'-DDE	Black-necked stilt, Mallard	Reproductive effects
	Mosquito Fish	Not specified[a]
4,4'-DDD	Mosquito Fish	Not specified[a]

[a] The endpoint is from the Ambient Water Quality Criteria (AWQC) which are designed to be protective of all aquatic life. No adverse effects are likely from exposure to COPECs at AWQC levels. AWQC may be conservative for mosquito fish as they are typically more tolerant than other aquatic species that were considered in setting the criteria.

adverse effects. In cases where the EQ is greater than 1.0 for both assessment methodologies for a given constituent, consideration must be given to the possibility of adverse effects to the trophic levels at risk as well as the movement of that constituent up the food chain.

Tables G-36 through G-43 in Appendix G present all of the calculated doses, UFs, and EQs for the lower trophic level biological data and the modeled data. All EQs greater than 1.0 are presented by species and assessment methodology in Section 6. These results may indicate the COPECs that are the most likely to produce adverse effects on individual animals within the system. Owing to the uncertainties and intentional biases, the magnitudes of the EQs are not necessarily indicative of the magnitudes of the adverse effects within the population.

Section 6
RESULTS AND CONCLUSIONS OF THE ECOLOGICAL RISK ASSESSMENT

In the 1993 ecological risk assessment (ERA), risk to the aquatic ecosystem was calculated based upon surface water and sediment samples. Since that time, additional data have been collected to supplement the existing surface water and sediment/sludge samples. Table 5-1 describes the types of additional data collected and the impoundment from which the sample was collected. Because so much additional information was collected including food source data and body burden tissue data, this assessment was much more extensive than the previous ERA. As a result, this ERA is intended to replace the conclusions of the 1993 ERA in their entirety.

The following subsections outline the results and conclusions of the ERA. Ecological quotients (EQs) were calculated by two different methodologies. The first method modeled concentrations in the assessment endpoint species by estimating uptake from their respective food sources. These modeled uptakes were then compared to measurement endpoints. Section 5.5.1 provides an explanation of measurement endpoint determination. The second method compared tissue concentrations from the upper trophic level assessment endpoint species to the same measurement endpoints used in the EQ calculations based on the food source uptake model.

Results and conclusions for both methods are presented below for each of the assessment endpoint species. Ponds A through F are not evaluated in this ERA since they are undergoing closure and will no longer provide a habitat for the aquatic species. The assessment endpoint for this evaluation is a decrease in the survivability and productivity of species within selected aquatic food chains; therefore, results and conclusions are based upon the overall impact on the food chains. The food chains being evaluated are presented at the beginning of each subsection and in Figure 5-2. Due to the potential for waterfowl to move from one impoundment to another, their modeled results and body burden results are combined and evaluated over the entire aquatic system. Mosquito fish results were calculated for Pond G, the ditch, and Lake Holloman independently due to the assumption that fish are less mobile and more likely to spend their entire life in a single impoundment. Because mergansers are dependent upon mosquito fish as their primary food source, and mosquito fish are evaluated by impoundment, mergansers are also evaluated on an impoundment-specific basis. This is a conservative assumption because it evaluates the worst-case scenario of a merganser getting all of its food from a single impoundment and would highlight if any one of the impoundments was contaminated.

6.1 Summary of Results

DDT and its derivatives, DDE and DDD, are the only constituents found in the sewage lagoons and lakes that have the potential to cause adverse effects to the ecology. Table 6-1 summarizes the species and locations where EQs exceeded 1.0. These results are further examined in the subsections that follow. In general, the results of the assessment showed that the aquatic food chains examined are unlikely to be threatened by the constituent concentrations found within Pond G, the ditch, and Lakes Holloman and Stinky.

6.2 Waterfowl

Killdeer, mallard, and mergansers were used as assessment endpoint species to represent waterfowl at the sewage lagoons and lakes. Their respective food chains are described below.

Table 6-1
Summary of Ecological Quotients

Species	Pond G	Ditch	Lake Holloman	Lake Stinky
Killdeer (Model)				
All Constituents	<1	<1	--[a]	--[a]
Mallard (Model)				
All Constituents	<1	<1	<1	<1
Merganser (Model)				
All Constituents	<1	<1	<1	--[b]
Black-Necked Stilt (Body Burden)				
4,4'-DDE	7.46			
All Other Constituents	<1			
Mallard (Body Burden)				
4,4'-DDE	1.13			
All Other Constituents	<1			
Mosquito Fish (Body Burden)				
2,4'-DDD	<1	3.8	<1	--[b]
4,4'-DDD	2.7	210	<1	--[b]
4,4'-DDE	1.2	63	<1	--[b]
4,4'-DDT	<1	11	<1	--[b]
All Other Constituents	<1	<1	<1	--[b]

[a] Killdeer were not evaluated at Lakes Holloman and Stinky because food source samples could not be collected.

[b] Because Lake Stinky dries up every year, fish are not expected to be regular residents there and were not evaluated. Subsequently, mergansers were not evaluated there because of the lack of a food source for them there.

Benthic organisms and insect samples were used to model intakes for the mallard and killdeer. Mosquito fish samples were used to model intake for the merganser. In addition, body burden samples from a mallard and from black-necked stilts were collected and evaluated.

Food Chains Represented:
Sediment/Water → Benthos → Mallard
Sediment/Water → Insects/Benthos → Killdeer
Sediment/Water → Benthos →Mosquito Fish → Merganser

Body Burden Evaluation:
Mallard and Black-necked Stilt

All of the modeled EQs for the mallard, killdeer, and merganser were less than 1.0 for each impoundment in which they were evaluated. These results indicate that the food and water sources present at the sewage lagoons and lakes do not pose a risk to the avian species that inhabit the area. The results from the body burden evaluation showed EQs greater than 1.0 for 4,4-DDE in the mallard (1.13) and black-necked stilt (7.46) which could indicate that adverse effects may be possible.

Although mergansers do not commonly utilize the ditch as a habitat, mergansers were evaluated at the ditch in order to fully assess food chain impacts. Currently, mosquito fish in the ditch are not readily accessible to mergansers due to vegetative cover. None of the EQs calculated on the basis of mergansers eating the mosquito fish found in Pond G, the ditch, and Lake Holloman exceeded 1.0. Based on these results, the aquatic food chain does not appear to be threatened by constituents found in the sewage lagoons and lakes.

DDE is a metabolite of DDT, which was once used as a pesticide at the sewage lagoons for mosquito control. DDT has not been used at the sewage lagoons since the 1970s. However, DDT and its metabolites, DDE and DDD, bind to sediment and water, are highly lipophilic, and have a long half-life. These factors combine to result in high levels of bioaccumulation, especially in aquatic systems and in the species that use the aquatic system as a food source. Because DDT is no longer used at the sewage lagoons, the concentrations in the media (i.e., sludge) are decreasing. This decrease was observed in a review of data collected between 1992 and 1994 where an order of magnitude difference was noted (*Site Characterization Report*, Radian 1995). As a result, the EQs are also expected to continue to decrease to safe levels as the remaining metabolites are further broken down.

Because the results modeled from the media did not show risk, it is also possible that the DDE present in the tissue was from another source. Before its ban in 1972, DDT was used extensively worldwide. The widespread use of DDT, combined with its persistence in the environment, has resulted in DDT and its metabolites becoming virtually ubiquitous with continual transformation and redistribution within the environment (*Toxicological Profile for DDT, DDE, and DDD*, ATSDR 1992).

Killdeer intakes were not modeled at Lake Holloman or Lake Stinky because invertebrate samples were not abundant at the time of sampling.

The assessment endpoint that was chosen for this evaluation is the decrease in survivorship and productivity of species within selected aquatic food chains in the sewage lagoons and lakes. Although the EQ for DDE in mallards and stilts exceeds 1.0 in the body burden tissue, it is unlikely that the assessment endpoint species are threatened. A decrease in the population size of these species has not been observed. Concentrations of constituents in the media and food sources are not considered to be high enough to pose a risk to the avian species at the sewage lagoons and lakes (see Tables G-36 through G-41). A decrease in the survivorship and productivity of the aquatic food

chains for the avian species at the sewage lagoons and lakes is not anticipated.

6.3 Mosquito Fish

Mosquito fish were chosen as the assessment endpoint species to represent aquatic organisms at the sewage lagoons and lakes. Mosquito fish are the only fish present and are not native. The food chains associated with the mosquito fish are presented below. Mosquito fish tissue samples were used to calculate EQs for the fish and were used in the model as a food source for the merganser. Merganser results are discussed in Section 6.2.

Food Chains Represented:
Sediment/Water → Benthos → Mosquito Fish
Sediment/Water → Benthos → Mosquito Fish → Merganser

Body Burden Evaluation:
Mosquito Fish

Mosquito fish were evaluated for Pond G, the ditch, and Lake Holloman individually based upon samples collected from each of those impoundments. Fish samples were not collected from Lake Stinky. Mosquito fish are not native, but were introduced to the sewage lagoons to aid in mosquito control. Mosquito fish were not introduced to Lake Holloman or Lake Stinky directly, though refugee fish are known to have migrated from the sewage lagoon discharge to the ditch and Lake Holloman. For this ERA, concentrations in mosquito fish tissue are associated only with the impoundment in which they were collected. Mosquito fish samples were also used to model EQs in mergansers since mergansers consume fish as a primary food source. In many cases, measurement endpoints from studies involving species other than mosquito fish were used. Because mosquito fish are an unusually tolerant and hardy species, EQs calculated for the mosquito fish from toxicity data based on a different species may be overly conservative. The impoundment-specific results are summarized in Table 6-1 and discussed below.

Mosquito fish EQs calculated for DDD and DDE in Pond G were slightly above 1.0 indicating that adverse effects from only these constituents may be possible. Mosquito fish EQs for DDD, DDE, and DDT in the ditch also exceeded 1.0, but to a greater extent as shown in Table 6-1. EQs of this magnitude indicate that adverse effects are possible or even probable; however, no fish kills have been observed at this site or at any other impoundment. DDD and DDE are both metabolites of DDT which was once used for mosquito control at the sewage lagoons. The properties and food chain mobility of DDT and its metabolites are discussed in detail in Section 6.2 as well as in the toxicity profiles for these chemicals found in Appendix H.

None of the EQs for mosquito fish found in Lake Holloman exceeded 1.0; therefore, adverse effects to the mosquito fish are not expected. Lake Stinky is a playa lake that does not contain water during most of the year. Although a few refugee mosquito fish have been found there, they are not expected to be regular residents. No mosquito fish samples were collected from Lake Stinky during the field investigation; therefore, no risks were evaluated..

6.4 Constituents Not Evaluated

Quantitative evaluation of COPECs was based upon toxicity studies found in searches of the TOXNET, TOXLINE, the Hazardous Substances Data Base, the Registry of Toxic Effects of Chemical Substances, and available literature. For some constituents, however, no applicable studies were found that could be used as a measurement endpoint. If a measurement endpoint could not be found for a species within the same taxonomic class as the assessment endpoint species, an EQ was not calculated. Although an EQ could not be calculated, a qualitative evaluation is provided.

Antimony was detected in the biological media and in the soil at the ditch. Antimony is naturally occurring in the earth's crust but is also released in manufacturing and processing industries such as metal smelting, refining, and coal-fired power plants. Releases are generally due to volatilization during combustion and can travel far from the original source once airborne. It does not appear to bioconcentrate appreciably in fish and aquatic organisms. Antimony could also come from cleaning and stripping auto or aircraft parts, although its distribution in the sewage lagoons and lakes is not consistent with these activities. If the wastewater stream was the source of antimony contamination, it seems likely that the concentrations would be decreasing as the water passed from the upper impoundments to the lower lakes. However, this was not the case as concentrations of antimony increase in the lower impoundments, suggesting that antimony is present under natural conditions.

Barium concentrations throughout the sewage lagoons and lakes, as well as the entire Base, are variable. However, concentrations of barium in the impoundments also increase in the lower impoundments, contrary to what would be expected if the concentrations were due to the wastewater stream. In fact, the highest concentrations of barium in the soil/sludge were found in Lake Holloman. All of these factors combine to suggest that the levels of barium found within this system are likely caused by natural sources rather than by a release. Barium is a naturally occurring component of minerals that is widespread throughout the earth's crust. Barium could also be present from cleaning and stripping auto or aircraft parts, although distribution in the sewage lagoons and lakes is not consistent with this process. Weathering of rocks and minerals is the primary means of barium release to the environment. It is likely that the concentrations of barium in the system are due to the bioconcentration of naturally occurring barium in the environment.

Hexachlorobenzene (HCB) was detected in biological media, but has never been detected in surface water or soil/sludge. The concentrations of HCB detected in the biological samples were very low and were below the detection limit for the surface water and soil/sludge analyses. Hexachlorobenzene is a fungicide that binds tightly to soil and sediment, but is not a constituent in any fungicides that can be purchased through the USAF. There are also no known historical sources of HCB at Holloman AFB.

Mirex was detected in fish and benthic organisms at Pond G at concentrations less than 1 part per billion (ppb). Mirex is an insecticide that was used throughout the U.S. in the 1960s for the control of fire ants, although fire ants have never been found at Holloman AFB. There are no known historical uses of mirex at Holloman AFB. Mirex is extremely persistent in sediment and soil for an extended length of time (*Toxicological Profile for Mirex and Chlordecone*, ATSDR 1993). Its use was banned in 1978. Mirex has a very long half-life.

Various polychlorinated dioxins/furans were detected at low levels in some of the biological samples. Most of these concentrations were below the method detection limit and are therefore somewhat suspect. No current or historical sources of these constituents are known at Holloman AFB.

Although quantitative conclusions cannot be drawn about these chemicals, it is unlikely that they represent risk to the system. Lack of toxicity values may underestimate risk; however, it is not possible to assess ecological risk if toxicity values are unavailable. Although some uncertainty is added to the investigation, the overall conclusions are not expected to be impacted.

6.5 Summary of Conclusions

For this ERA, conclusions are drawn from interpretation of the modeled results in conjunction

with the body burden data. The assessment endpoint has been determined to be the decrease in the survivorship and productivity of species within selected aquatic food chains in the sewage lagoons and lakes.

The results of the assessment indicated that DDD, DDE, and DDT are the only constituents with the potential to cause adverse effects to the assessment endpoint species. For avian species, this potential is very low. No EQs greater than 1.0 were calculated from the food source model. EQs for young of year avian species were less than 8 for DDE in the mallard and stilt body burden tissue. These are considered to be due to bioconcentration of the breakdown of residual DDT deposited in the sewage lagoons prior to the 1970s. A decrease in the survivorship and productivity of avian species of the aquatic food chains at the sewage lagoons and lakes is not anticipated.

Although EQs for mosquito fish were above 1.0 for DDD, DDE, and/or DDT in Pond G and the ditch, the potential for adverse effects to the assessment endpoint is still low. The assessment endpoint addresses the integrity of the trophic structure of the pond system. Because mergansers primarily consume fish, the assessment endpoint would be threatened if mergansers were at risk from eating the mosquito fish, or if the number of fish was not adequate to support the merganser population. This is not the case, however. None of the EQs for mergansers exceeded 1.0 for any constituent in any impoundment, and mergansers are not threatened by a lack of mosquito fish for food source purposes. The concentrations of constituents in mosquito fish do not appear to pose a threat to the survivorship or productivity of the merganser; thus, the trophic integrity is not threatened.

The presence of DDT and its metabolites in the aquatic system at the sewage lagoons and lakes is of concern. However, because the source was eliminated in the 1970s, site data indicate that the levels of these contaminants in media are decreasing to a level that poses no threat to the aquatic ecosystem. This is shown by the significant decrease in concentration of DDE over time in the impoundments (*Site Characterization Report*, Radian 1995c). Present concentrations in the media are self limiting and constituent levels are continuing to decrease. Thus, even though EQs were calculated that exceeded 1.0, the concentrations of these constituents appear to have already decreased to a level that does not threaten the survivorship or productivity of aquatic food chains in the sewage lagoons and lakes.

6.6 Uncertainty Assessment

Uncertainty occurs in almost every step of the ERA process. Most of the uncertainties described in the human health risk assessment apply to the ecological risk assessment as well. Additional uncertainty is added when measurement endpoints, or toxicity data, are for species other than the assessment endpoint species of concern. Uncertainty is often addressed by making intentionally biased, conservative assumptions throughout the entire process in order to ensure that risks are not underestimated. Individual assumptions are therefore conservative, but because of the compounded bias, the calculated EQs are even more conservative as a result of all of the assumptions throughout the process.

Uncertainty is also added as a result of the use of body burden data. The body burden samples allowed for a better starting point for modeling tissue concentrations in the assessment endpoint species. However, the sample sizes were often small and in one case, the concentrations used in the calculations were based on a single specimen. In order to address this uncertainty, modeling of contaminant intake for comparison to known toxic doses (measurement endpoints) was included to aid in interpreting the data. Table 6-2 describes specific uncertainties associated with this investigation.

Table 6-2
Uncertainties in the Ecological Risk Assessment

Parameter	Assumption	Uncertainty
Selection of Assessment End-point Species	Potential effects on the selected indicator species are representative of other animals at the sewage lagoons and lakes.	Exposures and chemical sensitivities vary among species.
Chemical Concentrations	Chemical concentrations in soil and groundwater are equal to the 95% UCL.	By definition, the average chemical concentration is most likely less than the 95% UCL.
	Biological samples for the duck and stilts collected in one location are representative of Pond G, the ditch, Lake Holloman, and Lake Stinky.	It is impossible to quantify the ingested fractions from each impoundment for these samples.
	Concentrations in the samples are consistent throughout the media represented.	Body burden samples were used in conjunction with modeled results to aid in this evaluation.
	The contaminant concentration in the duck and stilt tissue is representative of the total amount of contaminant consumed over the animals' lifetimes. Daily intakes for comparison to measurement endpoints can be calculated from this tissue concentration.	Although these animals were sacrificed at an early age, daily intakes derived from tissue concentrations may not be adequately represented due to metabolic effects. The animals may have a higher daily intake than what is shown in the tissue due to metabolism. This may not be the most conservative assumption. Stilts were two weeks old and the duck was nine months old.
Exposure Route Selection	The sewage lagoons and lakes provide 100% of water intake for assessment end-point species.	The assumption that the sewage lagoons and lakes provide 100% of an indicator species' water intake is conservative.
	Ingestion of food, soil, and water directly from the contaminated areas is the most significant exposure pathway for the assessment endpoint species.	Indirect exposures to off-site receptors could occur, but are generally less than direct exposures to on-site receptors.
Food Chain Transport	Fish BCFs from the literature search are applicable to this system.	Bioconcentration depends on species and environment. Actual BCFs may be higher or lower.
Ingestion Rates	Because of the desert environment, other food and water sources are scarce. Thus, it is assumed that indicator species ingest food and soil only from the contaminated areas.	Home ranges and feeding habits for the assessment endpoint species were not studied at this site and may vary.
	An animal's average food ingestion rate is representative of all individuals' ingestion rates.	Actual ingestion rates can vary among individual animals.
	Food ingestion rates based on experimentally derived correlations with body weight are representative of actual ingestion rates.	The correlation statistics for the allometric equations indicate that for a given body weight, food consumption can vary.

Table 6-2
(Continued)

Parameter	Assumption	Uncertainty
Body Weight	Average body weights from the available literature are representative of the population.	There is individual variation in body weight in animal populations.
Assessment Endpoint Selection	Survivorship and productivity are indicative of adverse environmental impacts.	Other endpoints could be more or less sensitive.
Measurement Endpoint Selection	Toxicological values (measurement endpoints) from laboratory bioassays are applicable to environmental exposures.	Bioassay conditions rarely reflect site-specific exposure conditions.
	Surrogate toxicological values are applicable.	Toxicological data for some chemicals (e.g., endrin aldehyde) was unavailable. Parent compound (endrin) toxicological data was used and is assumed to be representative.
	The selected measurement endpoints are relevant to the assessment endpoints.	The selected endpoints were based on available data. The quality and quantity of toxicological studies varies greatly among chemicals. Endpoints directly related to the specified assessment endpoint were not always available.
Uncertainty Factor Selection	The selected UFs for toxicity data type and duration and for interspecies variation are adequate to ensure that the selected measurement endpoints will not underestimate the impact on populations of the indicator species.	Although the selected UFs increase the probability of false positive results and decrease the probability of false negative results, it would be difficult to determine the exact degree of protection provided by the UFs.

Section 7
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Appendix A

Chemicals of Potential Concern and Supporting Statistical Data

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A.1.0 INTRODUCTION

This section presents the results of the data evaluation performed to determine chemicals of potential concern (COPCs) and summary statistics for use in the risk assessment addendum for the Holloman AFB Sewage Lagoons Closure Project. The objective of the data analysis task was to update the COPCs used in the 1993 risk assessment report (Radian, 1993a) using the data collected in 1994 and 1995.

This section discusses how COPCs were determined for the 1994 and 1995 data only. For a discussion of the COPC process for the 1993 risk assessment please refer to the 1993 Sewage Lagoons and Lakes risk assessment (Radian, 1993a). This section also discusses how summary statistics were calculated for the updated risk assessment using the combined data from the 1993 risk assessment, and the 1994 and 1995 data.

COPCs were identified for both organic and inorganic analytes in sludges, soils, and surface water. COPCs were identified for each of the sewage lagoons, ditches, and lakes being evaluated for the updated risk assessment. Table A-1 shows the areas, matrices, and years for which data were collected at the sewage lagoons. Site locations and matrices for which data were collected in 1994 or 1995 are highlighted in the table. These are the areas and matrices for which new COPCs were determined and which will be discussed in this section.

This appendix is divided into five sections. Section A.2.0 presents the COPCs identified for the sewage lagoons. Section A.3.0 gives an overview of the technical approach used, and Section A.4.0 gives detailed results of the analysis performed. References are in Section A.5.0. Additional summary tables with detailed results are given in Appendix B. The raw data used to determine COPCs is given in Appendix C.

Table A-1
Site Locations, Matrices, and Data Sources Evaluated for
1995 Risk Assessment for the Sewage Lagoons Closure Project

Site Name	Matrices Evaluated	Years Data Were Collected
The Ditch	Soil	1992, 1993, 1994
	Surface Water	1993, 1994
Lake Holloman	Sludge	1992, 1994
	Soil	1992
	Surface Water	1990, 1993, 1994
Lake Stinky	Soil	1992, 1993, 1994
	Surface Water	1993
Pond A	Sludge	1988, 1993, 1995
	Soil	1990
	Surface Water	1993
Pond B	Sludge	1988, 1990, 1995
	Soil	1990
	Surface Water	1990, 1993
Pond C	Sludge	1990, 1992, 1994, 1995
	Soil	1990, 1992
	Surface Water	1990, 1993, 1994
Pond D	Sludge	1994, 1995
	Soil	1992
	Surface Water	1990, 1993, 1994
Pond E	Sludge	1992, 1993, 1994
	Soil	1992
	Surface Water	1990, 1993, 1994
Pond F	Sludge	1992
	Soil	1992
	Surface Water	1993
Pond G	Sludge	1992, 1994
	Soil	1992
	Surface Water	1990, 1993

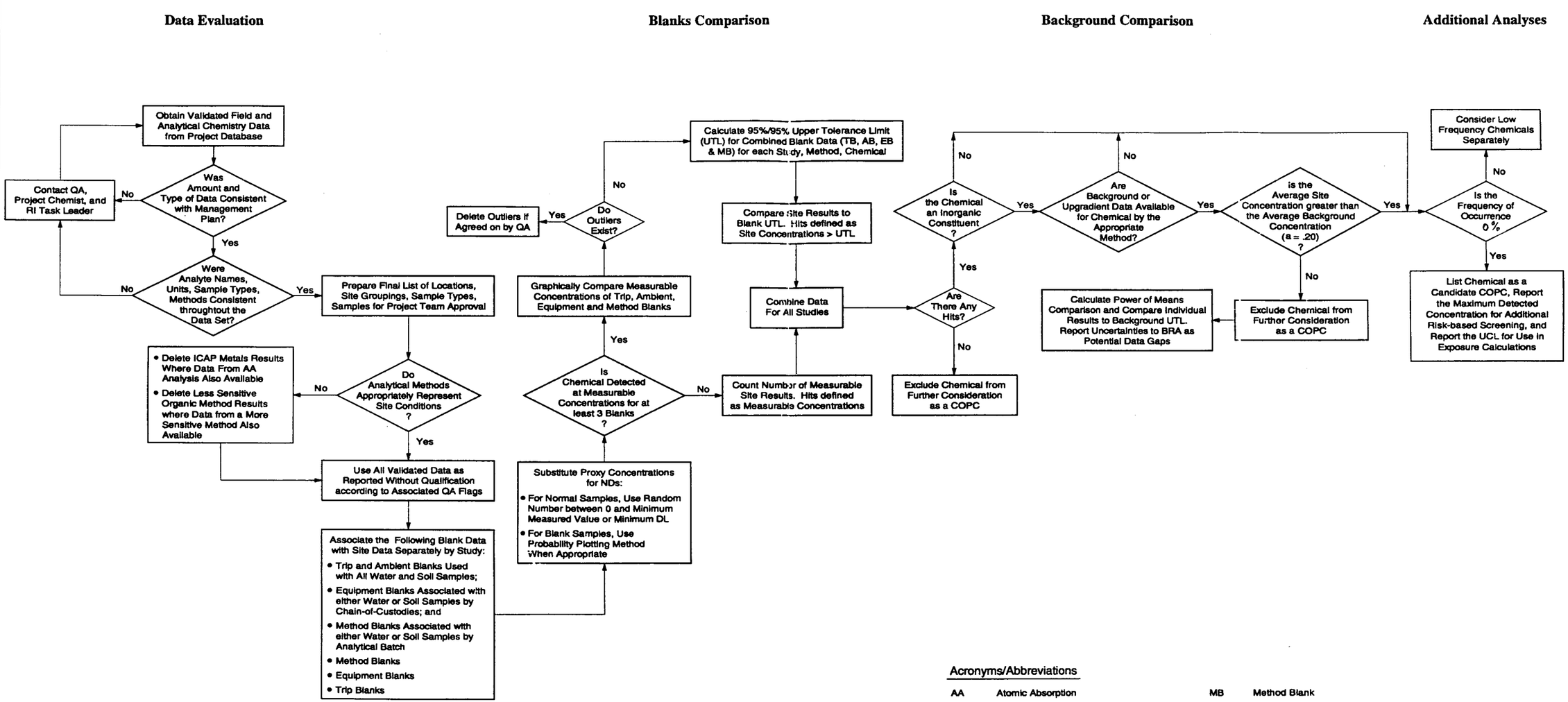
A.2.0 SUMMARY

Chemicals of potential concern (COPCs) represent chemicals that are positively identified as present in a source area due to historical activities at the site. COPCs include those chemicals that are:

- Measured at levels significantly elevated above levels measured in associated blank samples; and
- Measured at levels significantly elevated above naturally occurring levels.

COPCs for the 1994 and 1995 data were determined using the statistical approach described in this appendix to focus the data analysis efforts on only those compounds that are of concern at the site. Chemicals that were not detected at prescribed concentrations or frequencies were eliminated as possible COPCs. The resulting lists of COPCs for the 1994 and 1995 data were then compared to the COPCs obtained during the 1993 risk assessment. If an analyte was ever a COPC for an area, then that analyte was listed as a COPC for that area. The final COPCs and summary statistics presented in this appendix were evaluated by the risk assessors to estimate the total risk at each impoundment in the sewage lagoon system..

Figure A-1 details the decision path used to determine COPCs for the 1994 and 1995 sewage lagoon system data. COPCs were identified using the principles described in the following EPA guidance documents: Chapter 5 (Data Evaluation) of the *Risk Assessment Guidance for Superfund, Volume I Human Health Evaluation Manual* (Part A) (EPA, 1989) and the *Guidance for Data Useability in Risk Assessment* (EPA, 1992a). Steps taken to determine COPCs included comparisons of site concentrations to blank concentrations and, for inorganic chemicals, comparisons to background concentrations. Figure A-1 is different from the historical application of procedures described in the EPA guidance documents in that:



Acronyms/Abbreviations

AA	Atomic Absorption	MB	Method Blank
AB	Ambient Blank	ND	Not Detected
BRA	Baseline Risk Assessment	QA	Quality Assurance
COPC	Chemical of Potential Concern	RDA	Recommended Daily Allowance
DL	Detection Limit	TB	Trip Blank
EB	Equipment Blank	UCL	Upper Confidence Level
EPA	Environmental Protection Agency	UTL	Upper Tolerance Limit
ICAP	Inductively Coupled Argon Plasma		

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Figure A-1. COPC Identification Process

- Uncensored data were reported from the analytical laboratory when possible so that proxy concentrations did not need to be estimated for results reported as "Not Detected" [this is the preferred approach according to EPA (1992a) and Gilbert (1987)];

- "Occurrence" (as used to calculate "frequencies of occurrence" or "frequencies of detection") was defined as a result exceeding the upper tolerance limit for blank data as opposed to the normal usage of "occurrence" as results five times greater than the maximum blank detection (or ten times the maximum blank detection for common laboratory contaminants).

These changes from historical applications allowed a more technically justifiable determination of the COPCs without the potential for bias due to arbitrary limits based on factors of a single measurement (e.g., the 5 times and 10 times rule for evaluating results relative to blank data). The justification for this approach is provided in this appendix.

Table A-2 gives the final list of COPCs for the 1995 Risk Assessment for each site. COPCs are presented for sludges, soils, and surface water. See the 1993 Risk Assessment Report (Radian, 1993a) for groundwater conclusions. The COPCS shown in Table A-2 are footnoted indicating the year during which they were identified as COPCS. Those identified as COPCs during the 1993 risk assessment are footnoted with a (1), those identified as COPCs using the 1994 data are footnoted with a (2), and those identified as COPCS using the 1995 data are footnoted with a (3). Table A-2 results can be cross-referenced with Table A-1 to identify whether or not data was collected during a particular year, and if so, whether or not it was a COPC for that year. The COPCs listed in Table A-2 represent chemicals that were all positively identified at the site.

Table A-2
Contaminants of Potential Concern for Holloman Lakes and Lagoons

Risk Group	Contaminants of Potential Concern		
	Sludges	Soils	Surface Water
Pond A	Aroclor-1254[3] Sulfide, Reactive[3] Sulfide, Total[3]	None	None
Pond B	Aroclor-1254[3] Sulfide, Reactive[3] Sulfide, Total[3]	None	None
Pond C	Acetone[1] Acetophenone[1] Aluminum[1] Arsenic[1,2] alpha-BHC[2] delta-BHC[1,2] gamma-BHC[2] Barium[1,2] Benzene[1] Beryllium[1,2] Cadmium[1,2] Carbon disulfide[1] alpha-Chlordane[1] gamma-Chlordane[1] Chromium[1,2] Cobalt[1,2] Copper[1,2] Cyanide[1] 4,4'-DDD[1,2] 4,4'-DDE[1,2] 4,4'-DDT[1,2] Dibenzofuran[1] Dibutylphthalate[1] Dieldrin[2] Endosulfan I[1,2] Ethyl benzene[1] bis(2-Ethylhexyl)phthalate[1] Fluoranthene[1] Kepone[2] Kepone (Mirex)[1] Lead[1,2] Manganese[1] Mercury[1,2] Methyl ethyl ketone[1] Methylene chloride[1] 2-Methylnaphthalene[1] Nickel[1,2] Phenanthrene[1] Phenol[1] Pyrene[1] Selenium[1,2] Silicon[1] Silver[1,2] Sulfide[1] Sulfide, Reactive[3] Sulfide, Total[3] 2,4,5-T[1] Tetrachloroethene[1] Tin[2] Toluene[1] Vanadium[1,2] Xylenes[1] Zinc[1,2]	Acetone[1] Aldrin[1] Aluminum[1] Arsenic[1] beta-BHC[1] delta-BHC[1] Barium[1] Beryllium[1] Carbon disulfide[1] Chromium[1] Cobalt[1] Copper[1] Cyanide[1] 4,4'-DDD[1] 4,4'-DDE[1] 4,4'-DDT[1] Di-n-octylphthalate[1] Dibutylphthalate[1] Dichloroprop[1] Endosulfan I[1] Endosulfan sulfate[1] Endrin aldehyde[1] ethyl benzene[1] bis(2-Ethylhexyl)phthalate[1] Heptachlor epoxide[1] Lead[1] Manganese[1] Methylene chloride[1] Molybdenum[1] Nickel[1] Phenanthrene[1] Pyrene[1] Silicon[1] Sulfide[1] Toluene[1] Vanadium[1] Zinc[1]	Aluminum[1] Arsenic[1] beta-BHC[1] Barium[1] Boron[1] Chromium VI[1] bis(2-ethylhexyl)phthalate[1] Lead[1] Magnesium[1] Manganese[1] Silicon[1] Vanadium[1] Zinc[1]

Table A-2
(Continued)

Risk Group	Contaminants of Potential Concern		
	Sludges	Soils	Surface Water
Pond D	Aldrin [2] Arsenic [1,2] alpha-BHC [2] delta-BHC [1] Barium [1,2] Beryllium [1,2] Chlordane [2] Chromium [1,2] Cobalt [1,2] Copper [1,2] 4,4'-DDD [1,2] 4,4'-DDE [1,2] 4,4'-DDT [1,2] Endosulfan II [2] Endosulfan sulfate [1] Lead [1,2] Nickel [1,2] Selenium [1,2] Silver [1,2] Thallium [1] Tin [1] Vanadium [1,2] Zinc [1,2]	Acetone [1] Arsenic [1] beta-BHC [1] delta-BHC [1] gamma-BHC [1] Barium [1] alpha-Chlordane [1] Chromium [1] Cobalt [1] Cyanide [1] 4,4'-DDD [1] 4,4'-DDE [1] 4,4'-DDT [1] Endosulfan sulfate [1] bis(2-ethylhexyl)phthalate [1] Heptachlor [1] 2-Hexanone [1] 4-Hydroxy-4-methyl-2-penta [1] Lead [1] 3-Methyl pentane [1] Nickel [1] Selenium [1] Sulfide [1] Vanadium [1] Zinc [1]	Arsenic [1] delta-BHC [1] gamma-BHC [1] Barium [1] Benzoic acid [1] Boron [1] Butylbenzylphthalate [1] gamma-Chlordane [1] 4,4'-DDD [1] Dibutylphthalate [1] Dieldrin [1] Diethylphthalate [1] Endosulfan sulfate [1] bis(2-ethylhexyl)phthalate [1] Heptachlor epoxide [1] Lead [1] Lead (organic) [1] Manganese [1] Mercury [1] Methyoxychlor [1] Phenol [1] Selenium [1] Silicon [1] Vanadium [1] Zinc [1]

Table A-2
(Continued)

Risk Group	Contaminants of Potential Concern		
	Sludges	Soils	Surface Water
Pond E	Antimony[1] Arsenic[1,2] alpha-BHC[2] delta-BHC[2] gamma-BHC[2] Barium[1,2] Beryllium[2] Cadmium[1] gamma-Chlordane[1] Chromium[1,2] Cobalt[2] Copper[1,2] 4,4'-DDD[1,2] 4,4'-DDE[1,2] 4,4'-DDT[1,2] Dibutylphthalate[1] Dieldrin[2] Diethylphthalate[1] bis(2-ethylhexyl)phthalate[1] Heptachlor[1] Heptachlor epoxide[1] Lead[1,2] Mercury[1,2] Molecular sulfur[1] Nickel[1,2] Phenanthrene[1] Selenium[1,2] Silver[1,2] Sulfide[1] Thallium[2] Tin[1,2] Toluene[1] Vanadium[1,2] Xylenes[1] Zinc[1,2]	Acetone[1] Aldrin[1] Arsenic[1] alpha-BHC[1] beta-BHC[1] delta-BHC[1] Barium[1] Carbon disulfide[1] alpha-Chlordane[1] gamma-Chlordane[1] Chromium[1] Cobalt[1] Cyanide[1] 4,4'-DDD[1] 4,4'-DDE[1] 4,4'-DDT[1] Endosulfan II[1] Endosulfan sulfate[1] bis(2-ethylhexyl)phthalate[1] Heptachlor[1] Lead[1] Methylene chloride[1] Selenium[1] Sulfide[1] Toluene[1] 1,1,2-Trichlorotrifluoroethane[1] Vanadium[1] Zinc[1]	gamma-BHC[1] Barium[1] Benzoic acid[1] Boron[1] gamma-Chlordane[1] 4,4'-DDD[1] 4,4'-DDE Dieldrin[1] bis(2-ethylhexyl)phthalate[1] Heptachlor epoxide[1] Lead[1] Lead (organic)[1] Manganese[1] Mercury[1] Selenium[1] Silicon[1]

Table A-2
(Continued)

Risk Group	Contaminants of Potential Concern		
	Sludges	Soils	Surface Water
Pond G	Acetone [1] Acetophenone [1] Arsenic [1,2] alpha-BHC [1,2] delta-BHC [2] gamma-BHC [1] Barium [1,2] Beryllium [1,2] Carbon disulfide [1] Chlordane [2] alpha-Chlordane [1] gamma-Chlordane [1] Chromium [1,2] Cobalt [1,2] Copper [1,2] Cyanide [1] 4,4'-DDD [1,2] 4,4'-DDE [1,2] 4,4'-DDT [1,2] Dieldrin [2] bis(2-ethylhexyl)phthalate [1] Heptachlor epoxide [2] Kepone [2] Kepone (Mirex) [1] Lead [1,2] Mercury [1,2] Nickel [1,2] Selenium [1,2] Silver [2] Sulfide [1] Vanadium [1,2] Zinc [1,2]	Acetone [1] Arsenic [1] alpha-BHC [1] beta-BHC [1] gamma-BHC [1] Barium [1] Butylbenzylphthalate [1] Carbon disulfide [1] Chromium [1] Cobalt [1] Copper [1] Cyanide [1] Cyclohexenone [1] 4,4'-DDD [1] 4,4'-DDE [1] Di-n-octylphthalate [1] Endosulfan sulfate [1] bis(2-ethylhexyl)phthalate [1] Heptachlor [1] Isodrin [1] Lead [1] Methylene chloride [1] Isodrin [1] Lead [1] Methylene chloride [1] Nickel [1] Sulfide [1] Toluene [1] Vanadium [1] Zinc [1]	Arsenic [1] alpha-BHC [1] beta-BHC [1] gamma-BHC [1] Barium [1] Boron [1] Endosulfan II [1] bis(2-ethylhexyl)phthalate [1] Lead [1] Lead (organic) [1] Manganese [1] Mercury [1] Silicon [1] Vanadium [1] Zinc [1]

Table A-2
(Continued)

Risk Group	Contaminants of Potential Concern		
	Sludges	Soils	Surface Water
The Ditch	NA	Acetone [1] Aldrin [1,2] Antimony [1] Arsenic [1,2] alpha-BHC [1] beta-BHC [1] delta-BHC [1,2] gamma-BHC [1,2] Barium [1,2] Benzo(b)fluoranthene [1] Benzo(k)fluoranthene [1] Beryllium [1,2] Cadmium [1] Carbon disulfide [1] Chlordane [2] alpha-Chlordane [1] gamma-Chlordane [1] Chromium [1,2] Chrysene [1] Cobalt [1,2] Copper [1,2] Cyanide [1] Cyclohexenone [1] 4,4'-DDD [1,2] 4,4'-DDE [1,2] 4,4'-DDT [1,2] Dieldrin [2] Endosulfan sulfate [2] Endrin [2] Endrin aldehyde [1] bis(2-ethylhexyl)phthalate [1] Fluoranthene [1] Heptachlor epoxide [1] Lead [1,2] Mercury [1] Methoxychlor [2] Methyl ethyl ketone [1] Nickel [1,2] Pyrene [1] Selenium [1,2] Silver [1,2] Sulfide [1] Thallium [1] Tin [1] Toluene [1] Vanadium [1,2] Zinc [1,2]	alpha-BHC [1] Dieldrin [1] Isodrin [1]

Table A-2
(Continued)

Risk Group	Contaminants of Potential Concern		
	Sludges	Soils	Surface Water
Lake Holloman	Acetone[1] Arsenic[1,2] alpha-BHC[1,2] delta-BHC[1,2] gamma-BHC[1,2] Barium[1,2] Beryllium[2] Cadmium[2] Carbon disulfide[1] Chlordane[2] alpha-Chlordane[1] gamma-Chlordane[1] Chromium[1,2] Cobalt[1,2] Copper[1,2] Cyanide[1] 4,4'-DDD[1,2] 4,4'-DDE[1,2] 4,4'-DDT[1,2] Dieldrin[1,2] bis(2-Ethylhexyl)phthalate[1] Heptachlor[1] Isodrin[2] Kepone[2] Lead[1,2] Methyl ethyl ketone[1] Methylene chloride[1] Nickel[1,2] Selenium[1,2] Silver[2] Sulfide[1] Thallium[2] Vanadium[1,2] Zinc[1,2]	Acetone[1] Arsenic[1] alpha-BHC[1] delta-BHC[1] gamma-BHC[1] Barium[1] Carbon disulfide[1] Chromium[1] Cobalt[1] Cyanide[1] 4,4'-DDE[1] Endrin aldehyde[1] bis(2-Ethylhexyl)phthalate[1] Heptachlor[1] Isodrin[1] Lead[1] Mercury[1] Methyl ethyl ketone[1] Methylene chloride[1] Selenium[1] Sulfide[1] Toluene[1] Vanadium[1] Zinc[1]	Arsenic[1] alpha-BHC[1] gamma-BHC[1] Barium[1] Boron[1] Butylbenzylphthalate[1] 4,4'-DDD[1] 4,4'-DDT[1] Dibutylphthalate[1] Dieldrin[1] Diethylphthalate[1] Endosulfan sulfate[1] Endrin aldehyde[1] Endrin ketone[1] bis(2-Ethylhexyl)phthalate[1] Lead[1] Lead (organic)[1] Manganese[1] Mercury[1] Methoxychlor[1] Silicon[1] Vanadium[1] Zinc[1]

Table A-2
(Continued)

Risk Group	Contaminants of Potential Concern		
	Sludges	Soils	Surface Water
Lake Stinky	NA	Acetone[1] Aldrin[1,2] Arsenic[1,2] alpha-BHC[1,2] beta-BHC[1] delta-BHC[1,2] gamma-BHC[1,2] Barium[1,2] Beryllium[1,2] Cadmium[1] Carbon disulfide[1] Chromium[1,2] Cobalt[1,2] Copper[2] Cyanide[1] Cyclohexenone[1] 4,4'-DDD[2] 4,4'-DDT[2] Dieldrin[2] Endrin[1,2] Endrin aldehyde[1] bis(2-ethylhexyl)phthalate[1] Heptachlor[2] Heptachlor epoxide[2] Isodrin[1] Lead[1] Methyl ethyl ketone[1] Methylene chloride[1] Nickel[1,2] Parathion[1] Selenium[1,2] Sulfide[1] 2,4,5-T[1] Toluene[1] Trichloroethene[1] Vanadium[1,2] Xylenes[1] Zinc[1,2]	Aldrin[1] alpha-BHC[1] gamma-BHC[1] 4,4'-DDD[1] Dieldrin[1] Endosulfan I[1] Endrin aldehyde[1] Heptachlor epoxide[1] Isodrin[1]

[1] Analyte was identified as a COPC during the 1993 Risk Assessment
[2] Analyte was identified as a COPC based on the 1994 data.
[3] Analyte was identified as a COPC based on the 1995 data.

NA = Not applicable. No data collected for this media at the indicated site.
None = No COPCs for this media at the indicated site.

Note: No groundwater data collected during the 1994 and 1995 sample collections efforts. See the 1993 Risk Assessment Report for groundwater conclusions. Also, "Soils" includes both surface and subsurface soils.

A.3.0 TECHNICAL APPROACH

The technical approach discussed in this section primarily addresses how COPCs were determined for the 1994 and 1995 sampling data. It also addresses how data from the 1993 risk assessment were combined with the 1994 and 1995 data to calculate summary statistics for the updated risk assessment.

COPCs were identified for the 1994 and 1995 data by calculating the frequency of occurrence of site results. Statistical comparisons to naturally occurring background concentrations were performed for inorganic chemicals. This technical approach follows the *Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual* (EPA, 1989). The evaluation to determine COPCs for the risk assessment is detailed in Figure A-1 and included the following steps outlined in the EPA guidance:

- Review raw data for representativeness;
- Review blank data;
- Compare site results to blank data, and calculate frequency of occurrence for site chemicals (i.e., determine if site concentrations can be distinguished from blank results using standard sampling and analytical methods);
- Perform comparisons between site and background concentrations for naturally occurring chemicals (i.e., inorganic chemicals).
- Calculate summary statistics for COPCs.

Each of these steps are described in the following subsections.

A.3.1 Review of Available Raw Data for Representativeness

The first step in the COPC identification process is to review the available raw data for applicability. The EPA guidance states that all available data should be used to determine COPCs

if the data are of sufficient and comparable quality, and representative of site conditions. According to EPA guidance, this data review process must include an evaluation of the following areas:

- Data available from historical site investigations;
- Analytical methods;
- Quantitation limits;
- Data qualifiers; and
- Tentatively identified compounds (TICs).

Each of these steps in the data review process are addressed below.

A.3.1.1 Review of Data Available from Historical Site Investigations

Table A-1 in Section A.1.0 shows the years and media for which data were collected for each of the risk groups. The 1993 risk assessment data, and the 1994 and 1995 data were all collected during different time periods by different sampling teams. In addition, the 1994 and 1995 data were analyzed by a different analytical laboratory than the 1993 risk assessment data.

EPA guidance specifies that data collected from a site at different time periods by different sampling teams can be combined if the methods used to analyze samples from different time periods and sampling teams are similar in terms of types of analyses conducted and the QA/QC procedures followed, and if the concentrations between sampling periods are similar. This is the case for the sewage lagoons system data for these three sampling efforts. The same analytical methods were typically used for an analyte for different years and similar sampling plans were followed. All of the QA/QC and this evaluation was performed in a consistent manner. Thus, in calculating summary statistics for the risk assessment, data from all the sampling efforts listed above were compiled and used together. Chemicals were grouped and evaluated by analytical method.

Metals background data for soils and groundwater were obtained from the *Holloman Base-wide Background Study* (Radian, 1993b).

A.3.1.2 Analytical Methods

An examination of the analytical methods used to evaluate the data for this remedial investigation was an important part of the data review process. It focused on ensuring that the analytical methods used were appropriate for the analytes of interest (for example, chemicals known to have been used at Holloman AFB). For each of the sampling investigations, the approved sampling and analysis plans were implemented successfully and data were generated using the planned analytical methods.

When combining the data from different years and when performing comparisons to background data, all comparisons and analyses were performed by analytical method and analyte. The only exception to this was for arsenic and selenium. In the Holloman background study (Radian, 1993b), arsenic and selenium in soils were analyzed using method SW6010. During the sewage lagoons investigation, they were analyzed using methods SW7060 and SW7740, respectively. When doing a comparison between site and background results, arsenic by SW7060 was compared to arsenic by SW6010 and selenium by SW7740 was compared to selenium by SW6010.

If a chemical was analyzed by more than one analytical method and was shown to be a COPC by any one analytical method, then that chemical was listed as a COPC and only data from that analytical method were used to determine summary statistics for the risk assessment. If a chemical was shown to be a COPC by multiple analytical methods, then the analytical method determined to be most representative of Holloman AFB site conditions (i.e., the analytical method that provided the most representative results) was used. Only results from the analytical method deemed most representative were used to determine summary statistics for the risk assessment. For inorganic analytes, results from the graphite furnace methods were chosen over results from the inductively coupled plasma emission spectroscopy method because graphite furnace spectroscopy is subject to fewer interferences and can generally detect lower concentrations. For organic analytes, measurements from method SW8080 was chosen over method SW8270 because this method are more sensitive and able to achieve lower detection limits.

A.3.1.3 Quantitation Limits

The third step in the data review, as specified in the EPA guidance, involves the evaluation of "quantitation limits" for all of the chemicals assessed at the site. This analysis sometimes leads to the use of "proxy" (or estimated) concentrations for values reported as "not detected" and/or the elimination of certain chemicals from further consideration (because they are believed to be absent from the site).

"Quantitation limits" or reporting limits (RLs) were specified to each sample collected during the 1994 and 1995 Sewage Lagoons studies. The sample RLs take into account sample characteristics (e.g., matrix, dry weight) and analytical dilutions. RLs represent the lower bound of the normal working range for a particular method, and in this sense are conceptually similar to method quantitation limits.

Although RLs are available for assessment of the 1994 and 1995 data, they were not used by the analytical laboratory to censor data prior to the statistical analyses performed for this investigation. "Uncensored" data were requested from the laboratories for all sample and blank results. Uncensored data are measurements for which the results are reported "as measured" by the analytical instrument. The results are obtained using standard analytical and data reporting techniques, except that results below the RL are not discarded or reported as "not detected." Thus, numerical results are available for a larger proportion of the sample measurements. "Censoring," while often used for a variety of reporting needs (e.g., censoring all results below a health-based criteria and reporting "< Health Limit"), complicates statistical analysis and interpretation by removing information about measurement variability. Censoring also necessitates the use of proxy concentrations for results reported as "not detected" so that a numerical estimate is available for each result. A better approach is to use the uncensored data generated by the analytical laboratory and prevent the need for proxy concentrations (EPA, 1992a and Gilbert, 1987). While these measurements below the reporting limit may not indicate the presence and/or concentration of target analytes as reliably as measurements above the reporting limit, the uncensored measurement is a

better estimate of the concentration than any proxy concentration and will allow a better characterization of site conditions by data users and decision makers.

Uncensored data were used as reported for much of the inorganic and organic analyses performed on the data. This includes the use of negative results when they were reported for inorganic constituents. The use of negative results is appropriate and justifiable and has been recommended by numerous authorities for this type of application (see, for example, ASTM D-4210-83). The use of negative measurements is technically appropriate for all methods but is more common for inorganic methods. As the true concentration approaches zero, measurement variability causes the range of possible measurements to include negative results. As shown in the example in ASTM D 4210-83, exclusion or censoring of these negative measurements would bias any summary statistics (e.g., the average or mean) and thus provide a biased estimated of site conditions. Therefore, all uncensored measurements (i.e., positive and negative) were used as reported in the statistical determination of COPCs.

For some of the organic and inorganic analytes the data were automatically censored by the laboratory even when uncensored data were requested. This happens for those methods that use electronic filtering mechanisms to eliminate signals below a specified threshold (e.g., peak height, peak width, area reject). Thus, for these methods, results included data that were above the quantitation limit, "J" flagged data (reported results less than a quantitation limit), and "NDs" (where an "ND" indicated "no signal greater than the established threshold", *not* that the measurement was less than a reporting limit). Because there is usually some concentration related to the signal threshold (i.e., ND does not mean zero concentration), proxy concentrations *were* estimated for uncensored data reported as "NDs".

There are a number of ways for estimating proxy concentrations (e.g., substituting one-half the detection limit, substituting a uniform random number between zero and the reporting limit, etc.). It is noted that the sewage lagoons system data had J-flagged results (i.e., results lower than the reporting limit); thus, using a number between 0 and the RL would provide an overly conservative estimate of NDs since it is known that the instrument can detect results down to the

minimum J-flagged result. Proxy values were therefore estimated for NDs using a random number between 0 and the smaller of the minimum result and the RL for each site and media. This is believed to be the best approach since the RLs were, in some cases, orders of magnitude higher than the maximum detected results. In these cases, using a number between 0 and the RL would result in means and UCLs that were higher than the maximum detected result for some sites and media.

The approach used for estimating NDs is consistent with the EPA Risk Assessment Guidance document (RAGS) (EPA, 1989). RAGS states that if using one-half the RL for NDs results in UCLs that are larger than the maximum detected result, then the ND record can be thrown out from the data set. We did not throw out the ND record, but estimated the ND with a more reasonable proxy concentration (i.e., a random number between 0 and the minimum detected result, instead of one-half the RL).

A.3.1.4 Data Qualifiers or Codes

The fourth step in the data review process involves a review of data qualifiers or codes reported with the analytical results so that uncertainties can be identified and evaluated. All data that were validated during the QA/QC process were used to determine COPCs. This includes some data with qualifiers that indicate known identities, but uncertain concentrations.

A.3.1.5 Tentatively Identified Compounds

The last step in the data review process is an evaluation of tentatively identified compounds (TICs). The mass spectral analysis of samples for volatile organic compounds (VOCs) and semi-volatile organic compounds (semi-VOCs) results in the identification and quantitation of compounds given in the target compounds list (TCL). Sometimes the mass spectra indicate the presence of additional organic compounds that are not on the TCL. These spectra are compared with library spectra, and the compounds are tentatively identified compounds (TICs). The assigned identity and reported concentrations of TICs are uncertain because they are not based on direct comparison to calibration standards containing the compound, as is the case for TCL compounds.

EPA guidance states that TICs should be included in the risk assessment unless information exists to indicate that the TICs are not present at the site or unless the reported TICs do not have any associated toxicity values and therefore cannot be evaluated in the risk assessment. No TICs were reported for the 1994 and 1995 data, thus, no TICs were included in the data evaluation.

A.3.2 Review of Blank Data

According to EPA guidance, the second step in determining COPCs is to review the blank data to determine if site results are due to a source other than historical site activities (e.g., sampling or laboratory contamination). Field and laboratory blanks are included in the analytical program to provide an indication of the potential introduction of contaminants into samples during sample collection or analyses (e.g., during sampling, decontamination, or shipping). EPA guidance (both Contract Laboratory Program and risk assessment guidance) suggests that any site concentration greater than 5 times the maximum blank result for that analyte be considered a positive identification and should be included in the risk assessment. For common laboratory contaminants (CLCs), such as acetone, methyl ethyl ketone, methylene chloride, toluene, and the phthalate esters, the EPA recommendation is that site concentrations greater than 10 times the maximum blank result be considered a positive identification and should be included in the risk assessment. The approach used for the 1994 and 1995 analysis to determine positive occurrences or frequencies of occurrence deviates from that suggested in the EPA guidance.

Blank results can be used to evaluate the "noise" in the analytical system to verify whether site concentrations were in fact greater than the analytical noise. Blank results for this investigation were evaluated in terms of upper tolerance limits (UTLs) which are used to identify upper extremes of possible measurement results when there is not site contribution of the target analyte. If all of the blank results for an analyte were reported as "NDs", then the blank UTL for that analyte was reported as an "ND". A site result greater than the UTL for the blanks was considered a positive occurrence for that chemical; or, if the blank UTL was reported as an "ND" then any measured site result was considered a positive occurrence for that chemical. The approach used is believed to be a more justified approach in that it is a more accurate assessment of the likelihood of

a measurement to be analytical noise or representative of site conditions. The intent of the 5 and 10 times rule in the EPA guidance is to identify results that can be distinguished from analytical noise and those that cannot. The calculated UTLs for blank results accomplish this objective since they are probabilistic upper limits for the blank concentrations for a specific analyte.

Before calculating UTLs the blank data were evaluated to determine if there were any extremely high or outlying data which would indicate unusual contamination events. Box plots of the data were generated for each matrix and analyte for the site and blank data. Box plots are useful graphical tools for comparing the central tendency and dispersion of data distributions. An example of the box plot figures used for this analysis is presented in Figure A-2. Figure A-2 shows an example figure with the box plots for two cases:

1) Where the site data are indistinguishable from blank data; and,
2) Where the site data appear different from blank data.

Each box plot is annotated to describe the summary statistics shown in the plot. The bottom and top of the box are the 25th and 75th percentiles of the data, respectively; the bottom and the top of the vertical lines extending from the box plot are the minimum and maximum of the data, respectively; the solid horizontal line contained within the box is the median (the 50th percentile); and the dashed horizontal line is the mean. The labels on the x-axis identify the type of sample (e.g., sample results or blank results). The sample size is also identified at the top of each box plot. Lastly, horizontal stars indicating the median reported reporting limit are overlaid on the box plots.

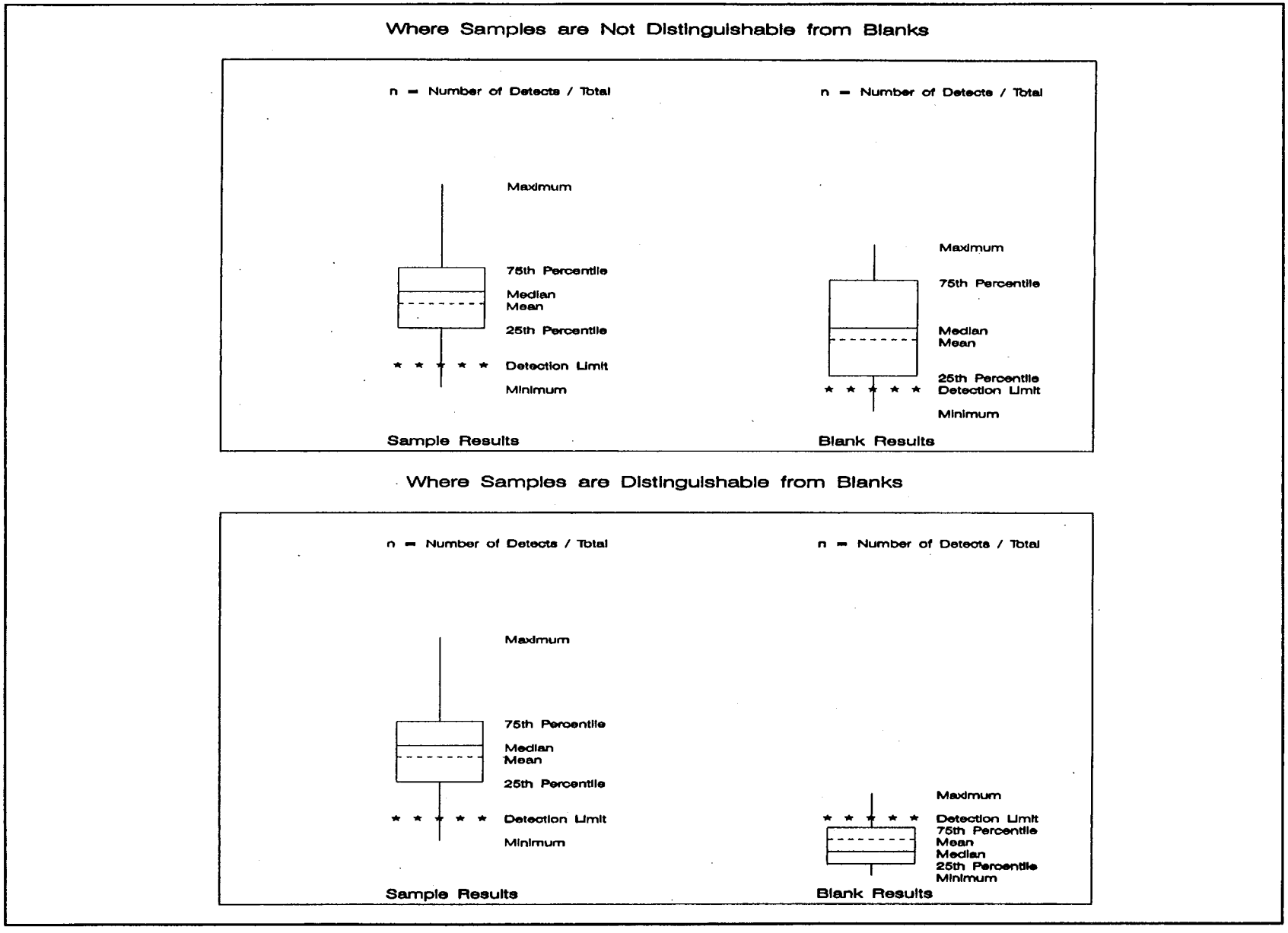

Figure A-2. Example Box Plots

Method blank (i.e., laboratory blank) samples were the only type of blank samples collected during the 1994 and 1995 sample collection efforts. In addition, every blank sample was reported by the laboratory as an "ND." Thus, every blank UTL was reported as an "ND," and any measured site result was considered a positive occurrence greater than blank concentrations (i.e., greater than the blank UTL).

A.3.3 Frequencies of Occurrence for Site Data

The third step in the COPC determination process performed for this was to compare the site data to the blank data to determine the potential for false-positive measurements because of laboratory contamination and to determine if target analytes occur frequently enough to pose a risk to human health or the environment. Frequencies of occurrence were calculated for each analyte, where a positive occurrence was any result greater than the UTL for the blanks (in this case, a positive occurrence was any measured site result since all of the blank UTLs were reported as ND). According to EPA guidance (EPA, 1989), analytes may be considered as candidates for elimination from a quantitative risk assessment if they are infrequently detected and there is reason to believe the detection is not due to site operations or disposal practices. For this study it was agreed that analytes with any positive detection frequency be considered for inclusion as a COPC in the risk assessment for that area. Inorganic analytes were further evaluated by comparing measurement results at the site to background concentrations, as discussed in the next section.

A.3.4 Comparison of Inorganic Site Concentrations to Naturally Occurring Background Levels

The fourth step in the COPC determination process performed for this investigation was to compare concentrations of naturally occurring chemicals to background levels. For inorganic soil chemicals, comparisons were performed between soil site concentrations and naturally occurring soil background levels. For inorganic surface water chemicals, comparisons were performed between surface water site concentrations and naturally occurring groundwater background levels (background surface water samples were not collected during the background study). Lastly, for

inorganic sludge chemicals, no comparisons to background were performed, since there was no background sludge data available. Thus, inorganic sludge analytes were included as COPCs based only on their frequency of occurrence. Background data were obtained from the *Holloman Base-wide Background Study* (Radian, 1993b).

A statistical "means comparison" was performed between site and background concentrations to determine if there was any evidence of metals contamination on the site. In addition, an "individuals" comparison was performed to further evaluate the data. In Section A.3.4.1, a summarization of the background data that were used for these comparisons is given and Section A.3.4.2 gives an overview of these two types of tests.

A.3.4.1 Characterization of Background Data

"Background" concentrations for soil and groundwater metals represent metals concentrations that are indigenous to Holloman AFB.

This subsection discuss the background data that were used for each of these matrices and the calculation of UTLs for background.

Results of a Base-wide background sampling investigation conducted at Holloman AFB are given in the *Holloman Base-wide Background Study* (Radian, 1993b). In this report, background concentrations were characterized for both total and dissolved groundwater metals, and background concentrations were characterized for soils ranging from depths of 0 to 7 feet. Background soils were not divided into surface and subsurface groups because during the background investigation, concentrations were found to be fairly homogenous for different depths.

All of the background data used, with one exception, was obtained from the *Holloman Base-wide Background Study* (Radian, 1993b). The only exception to this was for lead in soils. Concentrations for background lead in soils reported in the background study report for the Holloman AFB 29 Sites Study (Appendix F of the *Remedial Investigation (RI) Report, Investigation,*

Study and Recommendations for 29 Waste Sites, Radian, 1992) were used instead of those reported in the *Base-Wide Background Study*. This was because lead was analyzed by method SW7421 in the background study for the 29 Sites project, but by method SW6010 in the *Base-Wide Background Study*. Since method SW7421 for lead was also used for the sewage lagoons site investigation, comparing sewage lagoons site data to the 29 Sites Study background data provided data sets that would be more comparable in terms of the analytical methods used.

A.3.4.2 Means and Individuals Comparisons of Inorganic Site Concentrations to Background

Two types of statistical analyses were used to compare inorganic results from site areas to background areas. Tests of central tendency (e.g., means comparisons) were used to determine if, on the average, concentrations of metals in the source areas were greater than average background concentrations. The results of the test of central tendency were used to determine whether or not a particular inorganic chemical should be included as a COPC. Additionally, individual source area results were compared to UTLs. These comparisons were used to determine if individual sample results indicated the presence of hot-spots. The UTL comparisons were used to further evaluate the data.

A discussion of the applicability of tests of individual comparisons and tests of central tendency (e.g., means comparisons) is given in the first subsection below. This discussion is provided as an explanation of the use of both methods to determine if metals concentrations in source areas exceed those of background. The second subsection below gives a discussion of the statistical methods used to perform the means and individuals comparisons. Results of these statistical comparisons are provided in Section A.4.0 of this appendix.

Description of Tests of Means and Individuals Comparisons

Two types of statistical comparisons may be used to compare results from different sample populations. Means comparisons may be used to compare the average background

concentration to a corresponding average concentration for a site of interest (e.g., downgradient monitoring wells). Additionally, individual results from each of the wells may be compared to calculated UTLs for background concentrations.

Means comparisons [e.g., the Student's t-Test, the Wilcoxon Test, Analysis of Variance (ANOVAs)] are the preferred approach to testing whether or not measurement results indicate a difference between two or more "sample populations" of interest. In this risk assessment, as in other similar studies, the two sample populations are "background" and "site." Since these statistical concepts are more readily understood with examples, the following discussion will use the comparisons for soil as an example assessment to which these concepts may be applied. Conceptually, a means comparison tests the measurement results to determine the likelihood that they actually came from a single parent population, rather than from two different populations. (A Student's t-Test is a statistical test that can be performed when comparing *two* sample populations. An ANOVA is a statistical test that can be performed when comparing ***multiple*** sample populations). It is assumed that there is no difference between the two populations (i.e., that downgradient is not different from background) as long as the observed difference between their averages is within the range that could be attributed to chance.

The amount of difference attributable to chance in a means comparison is a function of variability in the sample data and the number of sample results available. The difference attributable to chance reflects the uncertainty in the statistical test and becomes smaller as the sample size increases. It also becomes smaller as the variability among results within each of the two populations decreases. The uncertainty resulting from sample size and variability directly affects what is known as the *power* of the statistical comparison. The power of a statistical comparison is the probability of detecting a given difference at a specified confidence level. As the power increases, it becomes possible to detect smaller and smaller differences between the true population means. Thus, with increased power there is less risk of failing to detect a difference that actually exists. This should not be confused with the confidence level of the test, which is related to the probability of erroneously concluding that a difference exists between the population means, when in fact the

population means are not different. As the confidence level increases, the probability of incorrectly indicating a difference decreases.

The comparison of individual results to UTLs of a given population is another way of testing the difference between two sample populations. The UTL used in these comparisons represents an estimate of the upper 95th percentile (i.e., a coverage of 95%) with 95% confidence of the true background concentration of the analyte of interest. For data that are not normally distributed the coverage may be $\leq$ 95% (a 95% coverage may not be achievable given the limitation of the statistical methods used for the non-normal case) and the confidence level is 95 percent. Thus, there is a relatively small chance, on the order of 1 in 20, of a sample of uncontaminated soil (i.e., soil that is no different from background) having a metal concentration greater than the UTL. When individual sample results are compared to UTLs, they are interpreted to indicate the presence of contamination when they exceed the UTLs. On the other hand, samples are considered to be not different from background as long as they do not exceed the UTL.

In most cases, means comparisons offer significant advantages over comparisons using individual results compared to UTLs. However, both types of comparisons are useful and they provide different information about the data and the parent populations. Means comparisons offer greater statistical power than comparisons based on the UTL. Thus, means comparisons can detect smaller differences between two populations and are less likely to fail to detect a difference that actually exists. Used to compare monitoring well results to background data, means comparisons can detect lower levels of contamination and are less likely to fail to detect contamination when it actually exists. Comparisons using individual results compared to UTLs are less sensitive and more likely to fail to detect contamination because of the inherent uncertainty in individual measurements. Much of this uncertainty is attributable to random measurement error, which is effectively "averaged out" in means comparisons where multiple results are considered together as a set.

The strength of means comparisons can also be their weakness. In the same way that random measurement error gets averaged out in the calculation of a sample mean, so can actual, non-random effects be diluted and overlooked. For example, four soil samples from four locations wells

might be grouped together based on their proximity to each other. Whereas comparing average results for the four wells offers more power, it is important not to overlook cases in which results from one member of the initial group stand out as appreciably different from the others. When this occurs, comparison of this single anomalous result to the UTL offers an approach for evaluating it separately, and, for example, deciding if the initial well grouping should be reconsidered. Comparisons based on the UTL are also useful when there is only one result available for comparison. However, if a conclusion is drawn that a site sample location is not different from background based on a single result, it must be acknowledged that there is a significant risk that there actually is a difference that was not detected simply because of the paucity of data.

Statistical Methods

As discussed in the previous section, tests of central tendency provide a good indication of whether or not the overall distribution of site concentrations and background concentrations differ significantly. Thus, results from the tests of central tendency were used to determine whether or not an inorganic was a COPC for the sewage lagoons data. Results from the individual comparisons were used to provide additional information on the site to background comparisons and to help in evaluating the power of the test. Tests of central tendency and individuals comparisons were performed to answer two different questions, and thus the results of the two tests may differ. For example the means comparison may show that there is no statistically significant difference between the site and background soil concentrations, on the average, while there may be one or two individual results that are greater than the UTL for background. This may indicate that, as a whole, the site is not different from background, but that there may be localized hot spots on the site. In such a case, further sub-divisions of the area may be considered.

For the soil data, the site and background data sets were evaluated with the Shapiro-Wilk test (Shapiro and Wilk, 1965) to determine if the data sets were normally distributed. Conclusions of the Shapiro-Wilk test were used to determine an appropriate method for comparing potential source area results to background results. An alpha level of 0.05 was used to determine significance for the test of normality.

The parametric Student's t-test (Proc t-test, SAS/Stat, 1989) was used to compare central tendencies (i.e., compare means) if results of both site and background data sets were normally distributed. The non-parametric Wilcoxon Rank-sum Test (Proc npar1way, SAS/Stat, 1989) was used to compare central tendencies if results of either site or background data sets were not normally distributed. The latter test compares the central tendency of the distributions of results by comparing the rank mean value for the source area to the background rank mean value. This is obtained by first combining the source area and background data sets for an analyte. The complete set of concentrations are then ordered. The rank of a value is its position in the combined data set (lowest = 1, second lowest = 2, etc.). The average rank for the values corresponding to the background data can then be compared to the average rank for the source area. If the second is measurably larger than the first according to the non-parametric test, then one would conclude that concentrations tend to be higher in the source area than in the background area. Thus, the comparison can be made of the ranks of the data and it is not necessary for the background and source area results to follow the same distribution (as is the case for parametric procedures). An alpha level of 0.20 was used to determine significance for all tests of central tendency.

Individual results from the source areas were compared to the UTLs given in the previous section that were calculated using the appropriate parametric or non-parametric method. This approach is drawn from EPA's RCRA (EPA, 1992b) guidance for statistical analyses in groundwater monitoring and is applicable to the situation described in this appendix.

This concludes the approach used to initially identify COPCs for the Sewage Lagoons data based on EPA risk assessment guidance. Summary statistics were calculated for these chemicals for risk assessors and other data users.

A.3.5 Calculate Summary Statistics for COPCs

The next step in the data analysis performed for the sites investigated for the sewage lagoons system was to calculate summary statistics for those analytes determined to be COPCs. As stated previously, an analyte was considered a COPC for a site and matrix, if that analyte was identified as a COPC during any of the studies or years (i.e., in the 1993 risk assessment, or using the 1994 data or the 1995 data). In calculating summary statistics for COPCs, measurements for nondetect results were estimated by substituting uniform random numbers between 0 and the smaller of the minimum J-flagged result and the reporting limit for each site, matrix, analytical method, and analyte. The types of summary statistics calculated depended on what years the analytes were identified as COPCs. The following three scenarios for COPCs exist:

1) An analyte was identified as a COPC during the 1993 risk assessment and for either the 1994 or 1995 data;

2) An analyte was not identified as a COPC during the 1993 risk assessment, but was identified as a COPC using the 1994 or the 1995 data; or

3) An analyte was identified as a COPC during the 1993 risk assessment, but was not identified as a COPC using the 1994 or the 1995 data.

The following types of summary statistics were calculated for the aforementioned cases, respectively:

1) Means and 95% UCLs for the means were calculated for all of the data combined (i.e., the 1993 risk assessment data, the 1994 data, and the 1995 data) and for the 1993 risk assessment data only. Next ratios of the combined means and UCLs to the 1993 Risk Assessment means and UCLs were calculated in order to update the risk assessment;

2) Means and 95% UCLs for the means were calculated for the 1994 and 1995 data combined;

3) No summary statistics were calculated since it was not necessary to update the 1993 Risk Assessment.

These summary statistics were used by the risk assessors to perform the analysis necessary to update the 1993 risk assessment.

A.4.0 RESULTS

This section presents the results of the data analyses performed to determine COPCs for the risk assessment. The following steps are included in the COPC determination process:

- Review blank data and determine UTLs for blank concentrations for the sampling data;
- Compare site results to blank data and calculate the frequency of occurrence for each site, media, analytical method, and analyte; and
- Perform comparisons between site and background concentrations for naturally occurring chemicals (i.e., inorganic chemicals).

Each of these steps are discussed in this section. Additionally, the summary statistics calculated for COPCs are presented.

A.4.1 Review of Blank Data

As part of the review process for the blank data, box plots were generated and analyzed to compare the central tendency and dispersion of the data distribution. Section A.4.2 discusses tables that include the UTLs for blanks for each matrix and analyte.

A.4.2 Frequencies of Occurrence for Site Data

The UTLs for blanks were reported as "ND" for every matrix and analyte (this was because all of the measured results for blanks were reported as "ND"). The frequency of occurrence was then calculated for each site, media, analytical method and analyte as the frequency of measured result (greater than the blank UTL). Appendix B contains summary tables that show the sample size, minimum, maximum, and frequency of occurrence for each site, media, analytical method, and analyte. The tables also show whether or not the chemical was included as a COPC and a footnote describing the reason a chemical was or was not listed as a COPC.

A.4.3 Comparison of Inorganic Site Concentrations to Naturally Occurring Background Levels

As discussed in Section A.3.4, the fourth step in the COPC determination process performed for this investigation was to compare concentrations of naturally occurring chemicals to background concentrations to determine if there is any evidence of metals contamination on the site. Section A.4.3.1 below, discusses tables of the background data that were used for these comparisons and Section A.4.3.2 gives the results of these comparisons.

A.4.3.1 Characterization of Background Data

Tables A-3 and A-4 give summary statistics (e.g., minimum, maximum, mean) for the groundwater and soils background data, respectively, for each metal. In addition to summary statistics, Tables A-3 and A-4 also show the number of samples collected and give information on the UTLs that were calculated for background. The UTLs for background should not be confused with the UTLs for blanks. Although both sets of UTLs were calculated using the same methods, they represent different things. The *blank* UTL was used to determine frequencies of occurrence for site concentrations. The *background* UTL is being used for the metals comparisons of site to background concentrations. The type of UTL calculated (normal or non-parametric) and the coverage for the UTL is also given in the Tables.

Tables A-3 and A-4 only present those metals for which sewage lagoons system data existed. A complete list of summary statistics for all of the background metals can be found in the *Holloman Base-wide Background Study* (Radian, 1993b).

Table A-3
Summary Statistics for Background Concentrations in Groundwater[a]

Analyte	Analytical Method	Summary Statistics (mg/L)[b]							Upper Tolerance Limit[b]		
		N	Minimum	Maxiuum	Median	Mean	Standard Deviation	95% UCL for Mean	Tolerance Type	Coverage (%)	Upper Tolerance Limit (mg/kg)
Arsenic	SW6010	14	-0.077	0.040	-0.008	-0.008	0.024	0.003	Normal	95.0	0.046
Barium	SW6010	14	0.009	0.480	0.039	0.085	0.110	0.137	NP	80.7	0.480
Chromium	SW6010	72	-0.007	0.096	0.002	0.005	0.015	0.008	NP	95.9	0.096
Cobalt	SW6010	74	-0.008	0.020	0.001	0.001	0.004	0.002	NP	96.0	0.020
Copper	SW6010	69	-0.013	0.030	0.001	0.002	0.008	0.004	NP	95.8	0.030
Lead	SW7421	66	-0.018	0.012	-0.001	-0.001	0.004	0.000	NP	95.6	0.012
Mercury	SW7470	50	-0.000	0.000	-0.000	-0.000	0.000	-0.000	NP	94.2	0.000
Nickel	SW6010	70	-0.019	0.040	0.001	0.001	0.009	0.003	NP	95.8	0.040
Selenium	SW7740	14	-0.084	0.060	-0.003	-0.001	0.032	0.015	Normal	95.0	0.073
Silver	SW6010	67	-0.008	0.010	0.000	0.000	0.003	0.001	Normal	95.0	0.007
Thallium	SW6010	75	-0.101	0.118	0.007	0.010	0.042	0.018	Normal	95.0	0.088
Thallium	SW6010	13	-0.002	0.005	0.001	0.001	0.002	0.002	Normal	95.0	0.004
Vanadium	SW6010	14	0.006	0.200	0.048	0.067	0.054	0.092	NP	80.7	0.200
Zinc	SW6010	14	0.011	0.160	0.021	0.033	0.032	0.048	NP	80.7	0.160

[a] *Base-Wise Background Study - Sewage Lagoons and Lakes Investigation* (Radian, 1993).
[b] Uncensored data used to calculate summary statistics and upper tolerance limits.

UCL = One-sided 95% upper conidence limit for the mean.
NP = Non-parametric upper tolerance limit.

Table A-4
Summary Statistics for Background Concentrations in Soils[a]

Analyte	Analytical Method	Summary Statistics[b] (mg/kg)							Upper Tolerance Limit[b]		
		N	Minimum	Maximum	Median	Mean	Standard Deviation	95% UCL for Mean	Tolerance Type	Coverage (%)	Upper Tolerance Limit (mg/kg)
Aluminum	SW6010	9	260	6200	2800	3107	1867	4264	Normal	95.0	8764
Antimony	SW7041	9	-0.049	0.140	0.064	0.067	0.061	0.105	Normal	95.0	0.253
Arsenic	SW6010	60	-9.212	8.238	0.152	0.116	3.355	0.840	Normal	95.0	6.883
Barium	SW6010	9	14.000	65.000	30.000	35.778	16.029	45.714	Normal	95.0	84.363
Beryllium	SW6010	9	-0.041	0.400	0.110	0.132	0.115	0.204	NP	71.7	0.400
Cadmium	SW6010	58	-0.376	0.560	0.004	0.015	0.197	0.058	NP	95.0	0.560
Calcium	SW6010	9	160000	250000	230000	223333	25495	239136	NP	71.7	250000
Chromium	SW6010	9	0.360	4.800	2.200	2.340	1.407	3.212	Normal	95.0	6.605
Cobalt	SW6010	9	0.260	1.700	0.760	0.916	0.518	1.237	Normal	95.0	2.485
Copper	SW6010	9	1.800	3.800	3.100	2.922	0.634	3.315	Normal	95.0	4.844
Iron	SW6010	9	180	4500	2000	2276	1348	3111	Normal	95.0	6362
Lead	SW7421	7	1.100	8.000	2.100	2.686	2.402	4.450	NP	65.2	8.000
Magnesium	SW6010	9	1700	12000	4500	5411	3050	7302	Normal	95.0	14656
Manganese	SW6010	9	7.500	120	37.000	46.167	33.238	66.769	Normal	95.0	146.910
Mercury	SW7471	37	-0.064	-0.008	-0.025	-0.027	0.012	-0.024	Normal	95.0	-0.001
Nickel	SW6010	9	1.200	4.700	2.400	2.389	1.064	3.048	Normal	95.0	5.612
Potassium	SW6010	9	91.000	1800	800	917.889	522.434	1242	Normal	95.0	2501
Selenium	SW6010	62	-12.000	12.910	-0.965	-0.461	5.468	0.699	Normal	95.0	10.531
Silver	SW6010	59	-1.513	1.156	-0.180	-0.201	0.463	-0.100	Normal	95.0	0.734

Table A-4
(Continued)

Analyte	Analytical Method	Summary Statistics[b] (mg/kg)							Upper Tolerance Limit[b]		
		N	Minimum	Maximum	Median	Mean	Standard Deviation	95% UCL for Mean	Tolerance Type	Coverage (%)	Upper Tolerance Limit (mg/kg)
Sodium	SW6010	9	590	5000	900	1550	1565	2520	NP	71.7	5000
Thallium	SW6010	61	-9.923	12.330	0.744	0.904	5.171	2.010	Normal	95.0	11.315
Thallium	SW7841	13	-0.062	0.160	-0.010	0.000	0.058	0.029	NP	79.4	0.160
Vanadium	SW6010	9	1.300	11.000	6.700	6.633	2.912	8.438	Normal	95.0	15.460
Zinc	SW6010	9	0.320	15.000	5.600	6.724	4.461	9.490	Normal	95.0	20.246

[a] *Base-Wise Background Study - Sewage Lagoons and Lakes Investigation* (Radian, 1993).
[b] Uncensored data used to calculatsummary statistics and upper tolerance limits.

UCL = One-sided 95% upper conidence limit for the mean.
NP = Non-parametric upper tolerance limit.

A.4.3.2 Means and Individuals Comparisons of Inorganic Site Concentrations to Background

Tables with the results of the means and individuals comparisons for surface water and soils are given in Table 1-2 in Appendix B. These tables show the p-values for the tests of central tendency, the conclusion (S = statistically significant at the 0.20 level, NS = not statistically significant at the 0.20 level), the power of the test, and the type of statistical test performed (i.e., Student's t-Test or Wilcoxon test). The power of the test represents the probability of detecting a difference of 40% between the background mean and the site mean at the 80% confidence level. They also show the background UTLs and the number of site results exceeding the UTLs. The last two columns of these tables indicate whether or not it was listed as a contaminant of potential concern (COPC) and a reason for this conclusion.

A.4.4 Calculate Summary Statistics for COPCs

The next step in the data analysis was to calculate summary statistics for those analytes determined to be COPCs. Organic analytes that had a positive frequency of occurrence for a given site were listed as COPCs. Inorganic analytes that had a positive frequency of occurrence and had average concentrations that were significantly greater than background were also listed as COPCs.

The following summary statistics were calculated for all analytes that were determined to be COPCs for the 1994 or 1995 data: minimum, maximum, mean, and 95% UCL for the mean. For censored data, proxy concentrations were estimated for values reported as ND by substituting a random uniform number between zero and the smaller of the minimum J-flagged result and the RL.

For analytes that were identified as COPCs for the 1994 and the 1995 data, as well as in the 1993 risk assessment, means and UCLs for the means were calculated for the 1993 risk assessment data and for all of the data combined. Next, ratios of the combined data means and UCLs

to the 1993 risk assessment means and UCLs were calculated. These ratios were used to update the 1993 Risk Assessment.

Table 1-3 in Appendix B gives summary statistics for those analytes identified as COPCs using the 1994 or 1995 data only. Table 1-4 in Appendix B gives summary statistics for those analytes identified as COPCs in the 1993 risk assessment *and* using the 1994 or 1995 data.

A.4.5 Raw Data

Raw data tables for sludge, soil and surface water samples are provided in Appendix C. These tables provide the laboratory sample identification number, the analytical method, the estimated concentration (measured value or proxy value if nondetect), and the reporting limit for that measurement.

A.5.0 REFERENCES

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APPENDIX B

Summary Tables for Determination of COPCs

Table 1-1

Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Ditch MEDIA=Soils METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Antimony	mg/kg	4	ND	ND	0.0	NC	No	a.
SW7060	Arsenic	mg/kg	4	1.6	2.8	100.0	NC	Yes	b.
SW6010	Barium	mg/kg	4	66.4	123	100.0	NC	Yes	b.
SW6010	Beryllium	mg/kg	4	0.55	1.1	100.0	NC	Yes	b.
SW6010	Cadmium	mg/kg	4	ND	ND	0.0	NC	No	a.
SW6010	Chromium	mg/kg	4	12.5	40.8	100.0	NC	Yes	b.
SW6010	Cobalt	mg/kg	4	4	5.6	100.0	NC	Yes	b.
SW6010	Copper	mg/kg	4	9.2	28	100.0	NC	Yes	b.
SW7421	Lead	mg/kg	4	7.4	63.5	100.0	NC	Yes	b.
SW7471	Mercury	mg/kg	4	ND	ND	0.0	NC	No	a.
SW6010	Nickel	mg/kg	4	9.9	15.1	100.0	NC	Yes	b.
SW7740	Selenium	mg/kg	4	ND	0.88	75.0	NC	Yes	b.
SW6010	Silver	mg/kg	4	ND	2.6	50.0	NC	Yes	b.
SW6010	Thallium	mg/kg	4	ND	0.58	25.0	NC	No	c.
SW6010	Tin	mg/kg	4	ND	ND	0.0	NC	No	a.
SW6010	Vanadium	mg/kg	4	22.9	34.1	100.0	NC	Yes	b.
SW6010	Zinc	mg/kg	4	33.8	80.5	100.0	NC	Yes	b.

N = 17

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Ditch MEDIA=Soils METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDD	mg/kg	4	0.0001	0.14	100.0	NC	Yes	f.
SW8080	4,4'-DDE	mg/kg	4	ND	0.0048	50.0	NC	Yes	f.
SW8080	4,4'-DDT	mg/kg	4	ND	0.0036	50.0	NC	Yes	f.
SW8080	Aldrin	mg/kg	4	ND	0.0038	25.0	NC	Yes	f.
SW8080	Chlordane	mg/kg	4	ND	0.15	25.0	NC	Yes	f.
SW8080	Diallate	mg/kg	4	ND	ND	0.0	NC	No	a.
SW8080	Dieldrin	mg/kg	4	ND	0.00072	25.0	NC	Yes	f.
SW8080	Endosulfan I	mg/kg	4	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan II	mg/kg	4	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan Sulfate	mg/kg	4	ND	0.00002	25.0	NC	Yes	f.
SW8080	Endrin	mg/kg	4	ND	0.0017	25.0	NC	Yes	f.
SW8080	Endrin Aldehyde	mg/kg	4	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor	mg/kg	4	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor epoxide	mg/kg	4	ND	ND	0.0	NC	No	a.
SW8080	Isodrin	mg/kg	4	ND	ND	0.0	NC	No	a.
SW8080	Methoxychlor	mg/kg	4	ND	0.00023	25.0	NC	Yes	f.
SW8080	Toxaphene	mg/kg	4	ND	ND	0.0	NC	No	a.
SW8080	alpha-BHC	mg/kg	4	ND	ND	0.0	NC	No	a.
SW8080	beta-BHC	mg/kg	4	ND	ND	0.0	NC	No	a.
SW8080	delta-BHC	mg/kg	4	ND	0.0052	75.0	NC	Yes	f.
SW8080	gamma-BHC	mg/kg	4	ND	0.00028	25.0	NC	Yes	f.

N = 21

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Ditch MEDIA=Surface Water METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW7421	Lead	mg/L	3	ND	ND	0.0	NC	No	a.

N = 1

---------- YEAR=1994 SITE=Ditch MEDIA=Surface Water METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
Organic Lead	Organic Lead	mg/L	3	ND	ND	0.0	NC	No	a.

N = 1

---------- YEAR=1994 SITE=Lake Holloman MEDIA=Sludges METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Antimony	mg/kg	25	ND	ND	0.0	NC	No	a.
SW7060	Arsenic	mg/kg	25	0.39	3.3	100.0	NC	Yes	f.
SW6010	Barium	mg/kg	25	24.1	348	100.0	NC	Yes	f.
SW6010	Beryllium	mg/kg	25	ND	3.5	36.0	NC	Yes	f.

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Lake Holloman MEDIA=Sludges METHOD=Inorganics ----------
(continued)

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Cadmium	mg/kg	25	ND	1.8	4.0	NC	Yes	f.
SW6010	Chromium	mg/kg	25	ND	40.7	80.0	NC	Yes	f.
SW6010	Cobalt	mg/kg	25	ND	54	68.0	NC	Yes	f.
SW6010	Copper	mg/kg	25	ND	27	96.0	NC	Yes	f.
SW7421	Lead	mg/kg	25	ND	18.9	92.0	NC	Yes	f.
SW7471	Mercury	mg/kg	25	ND	ND	0.0	NC	No	a.
SW6010	Nickel	mg/kg	25	ND	38.5	76.0	NC	Yes	f.
SW7740	Selenium	mg/kg	25	ND	1.7	36.0	NC	Yes	f.
SW6010	Silver	mg/kg	25	ND	4.7	40.0	NC	Yes	f.
SW6010	Thallium	mg/kg	25	ND	3.5	20.0	NC	Yes	f.
SW6010	Tin	mg/kg	25	ND	ND	0.0	NC	No	a.
SW6010	Vanadium	mg/kg	25	4.7	135	100.0	NC	Yes	f.
SW6010	Zinc	mg/kg	25	5	118	100.0	NC	Yes	f.

N = 17

---------- YEAR=1994 SITE=Lake Holloman MEDIA=Sludges METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDD	mg/kg	25	ND	0.36	88.0	NC	Yes	f.
SW8080	4,4'-DDE	mg/kg	25	ND	0.035	68.0	NC	Yes	f.

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Lake Holloman MEDIA=Sludges METHOD=Organics ----------
(continued)

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDT	mg/kg	25	ND	0.0016	8.0	NC	Yes	f.
SW8080	Aldrin	mg/kg	25	ND	ND	0.0	NC	No	a.
SW8080	Chlordane	mg/kg	25	ND	0.36	52.0	NC	Yes	f.
SW8080	Diallate	mg/kg	25	ND	ND	0.0	NC	No	a.
SW8080	Dieldrin	mg/kg	25	ND	0.0035	36.0	NC	Yes	f.
SW8080	Endosulfan I	mg/kg	25	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan II	mg/kg	25	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan Sulfate	mg/kg	25	ND	ND	0.0	NC	No	a.
SW8080	Endrin	mg/kg	25	ND	ND	0.0	NC	No	a.
SW8080	Endrin Aldehyde	mg/kg	25	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor	mg/kg	25	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor epoxide	mg/kg	25	ND	ND	0.0	NC	No	a.
SW8080	Isodrin	mg/kg	25	ND	ND	0.0	NC	No	a.
MRI-SOP	Kepone	mg/kg	15	ND	0.017	6.7	NC	Yes	f.
SW8080	Methoxychlor	mg/kg	25	ND	ND	0.0	NC	No	a.
SW8080	Toxaphene	mg/kg	25	ND	ND	0.0	NC	No	a.
SW8080	alpha-BHC	mg/kg	25	ND	0.00026	36.0	NC	Yes	f.
SW8080	beta-BHC	mg/kg	25	ND	ND	0.0	NC	No	a.
SW8080	delta-BHC	mg/kg	25	ND	0.00083	12.0	NC	Yes	f.
SW8080	gamma-BHC	mg/kg	25	ND	0.00018	4.0	NC	Yes	f.

N = 22

Table 1-1

Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Lake Holloman MEDIA=Surface Water METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW7421	Lead	mg/L	14	ND	ND	0.0	NC	No	a.

N = 1

---------- YEAR=1994 SITE=Lake Holloman MEDIA=Surface Water METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
Organic Lead	Organic Lead	mg/L	14	ND	ND	0.0	NC	No	a.

N = 1

---------- YEAR=1994 SITE=Lake Stinky MEDIA=Soils METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Antimony	mg/kg	11	ND	ND	0.0	NC	No	a.
SW7060	Arsenic	mg/kg	11	1.6	2.7	100.0	NC	Yes	b.
SW6010	Barium	mg/kg	11	33.9	89.7	100.0	NC	Yes	b.
SW6010	Beryllium	mg/kg	11	ND	0.69	27.3	NC	Yes	b.

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Lake Stinky MEDIA=Soils METHOD=Inorganics ----------
(continued)

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Cadmium	mg/kg	11	ND	ND	0.0	NC	No	a.
SW6010	Chromium	mg/kg	11	1.7	12.7	100.0	NC	Yes	b.
SW6010	Cobalt	mg/kg	11	0.95	6.2	100.0	NC	Yes	b.
SW6010	Copper	mg/kg	11	3.6	9	100.0	NC	Yes	b.
SW7421	Lead	mg/kg	11	ND	6.5	72.7	NC	No	c.
SW7471	Mercury	mg/kg	11	ND	ND	0.0	NC	No	a.
SW6010	Nickel	mg/kg	11	1.8	14.5	100.0	NC	Yes	b.
SW7740	Selenium	mg/kg	11	ND	0.45	27.3	NC	Yes	b.
SW6010	Silver	mg/kg	11	ND	ND	0.0	NC	No	a.
SW6010	Thallium	mg/kg	11	ND	ND	0.0	NC	No	a.
SW6010	Tin	mg/kg	11	ND	ND	0.0	NC	No	a.
SW6010	Vanadium	mg/kg	11	4.8	30.5	100.0	NC	Yes	b.
SW6010	Zinc	mg/kg	11	10.5	34.9	100.0	NC	Yes	b.

N = 17

---------- YEAR=1994 SITE=Lake Stinky MEDIA=Soils METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDD	mg/kg	11	ND	0.00016	27.3	NC	Yes	f.
SW8080	4,4'-DDE	mg/kg	11	ND	ND	0.0	NC	No	a.

Table 1-1

Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Lake Stinky MEDIA=Soils METHOD=Organics ----------

(continued)

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDT	mg/kg	11	ND	0.0052	27.3	NC	Yes	f.
SW8080	Aldrin	mg/kg	11	ND	0.0016	36.4	NC	Yes	f.
SW8080	Chlordane	mg/kg	11	ND	ND	0.0	NC	No	a.
SW8080	Diallate	mg/kg	11	ND	ND	0.0	NC	No	a.
SW8080	Dieldrin	mg/kg	11	ND	0.0042	45.5	NC	Yes	f.
SW8080	Endosulfan I	mg/kg	11	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan II	mg/kg	11	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan Sulfate	mg/kg	11	ND	ND	0.0	NC	No	a.
SW8080	Endrin	mg/kg	11	ND	0.0045	27.3	NC	Yes	f.
SW8080	Endrin Aldehyde	mg/kg	11	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor	mg/kg	11	ND	0.0021	36.4	NC	Yes	f.
SW8270	Heptachlor epoxide	mg/kg	1	ND	ND	0.0	NC	No	a.
SW8270	Isodrin	mg/kg	1	ND	ND	0.0	NC	No	a.
SW8080	Methoxychlor	mg/kg	11	ND	ND	0.0	NC	No	a.
SW8080	Toxaphene	mg/kg	11	ND	ND	0.0	NC	No	a.
SW8080	alpha-BHC	mg/kg	11	ND	0.00031	81.8	NC	Yes	f.
SW8080	beta-BHC	mg/kg	11	ND	ND	0.0	NC	No	a.
SW8080	delta-BHC	mg/kg	11	ND	0.00014	9.1	NC	Yes	f.
SW8080	gamma-BHC	mg/kg	11	ND	0.0017	45.5	NC	Yes	f.

N = 21

Table 1-1

Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Pond C MEDIA=Sludges METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Antimony	mg/kg	13	ND	ND	0.0	NC	No	a.
SW7060	Arsenic	mg/kg	13	0.88	3.3	100.0	NC	Yes	f.
SW6010	Barium	mg/kg	13	39.6	159	100.0	NC	Yes	f.
SW6010	Beryllium	mg/kg	13	ND	0.47	38.5	NC	Yes	f.
SW6010	Cadmium	mg/kg	13	ND	1.8	15.4	NC	Yes	f.
SW6010	Chromium	mg/kg	13	3.9	84.2	100.0	NC	Yes	f.
SW6010	Cobalt	mg/kg	13	1.7	5.9	100.0	NC	Yes	f.
SW6010	Copper	mg/kg	13	3.3	164	100.0	NC	Yes	f.
SW7421	Lead	mg/kg	13	0.55	31.5	100.0	NC	Yes	f.
SW7471	Mercury	mg/kg	13	ND	1.2	69.2	NC	Yes	f.
SW6010	Nickel	mg/kg	13	3.3	16.6	100.0	NC	Yes	f.
SW7740	Selenium	mg/kg	13	ND	3.6	92.3	NC	Yes	f.
SW6010	Silver	mg/kg	13	ND	179	92.3	NC	Yes	f.
SW6010	Thallium	mg/kg	13	ND	ND	0.0	NC	No	a.
SW6010	Tin	mg/kg	13	ND	27.9	53.8	NC	Yes	f.
SW6010	Vanadium	mg/kg	13	14.8	49.4	100.0	NC	Yes	f.
SW6010	Zinc	mg/kg	13	12.8	218	100.0	NC	Yes	f.

N = 17

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Pond C MEDIA=Sludges METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDD	mg/kg	13	0.00036	0.64	100.0	NC	Yes	f.
SW8080	4,4'-DDE	mg/kg	13	ND	0.55	92.3	NC	Yes	f.
SW8080	4,4'-DDT	mg/kg	13	ND	0.036	30.8	NC	Yes	f.
SW8080	Aldrin	mg/kg	13	ND	ND	0.0	NC	No	a.
SW8080	Chlordane	mg/kg	13	ND	ND	0.0	NC	No	a.
SW8080	Diallate	mg/kg	13	ND	ND	0.0	NC	No	a.
SW8080	Dieldrin	mg/kg	13	ND	0.0043	23.1	NC	Yes	f.
SW8080	Endosulfan I	mg/kg	13	ND	0.0049	7.7	NC	Yes	f.
SW8080	Endosulfan II	mg/kg	13	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan Sulfate	mg/kg	13	ND	ND	0.0	NC	No	a.
SW8080	Endrin	mg/kg	13	ND	ND	0.0	NC	No	a.
SW8080	Endrin Aldehyde	mg/kg	13	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor	mg/kg	13	ND	ND	0.0	NC	No	a.
SW8270	Heptachlor epoxide	mg/kg	3	ND	ND	0.0	NC	No	a.
SW8270	Isodrin	mg/kg	3	ND	ND	0.0	NC	No	a.
MRI-SOP	Kepone	mg/kg	8	ND	0.0036	12.5	NC	Yes	f.
SW8080	Methoxychlor	mg/kg	13	ND	ND	0.0	NC	No	a.
SW8080	Toxaphene	mg/kg	13	ND	ND	0.0	NC	No	a.
SW8080	alpha-BHC	mg/kg	13	ND	0.001	38.5	NC	Yes	f.
SW8080	beta-BHC	mg/kg	13	ND	ND	0.0	NC	No	a.
SW8080	delta-BHC	mg/kg	13	ND	0.0038	23.1	NC	Yes	f.
SW8080	gamma-BHC	mg/kg	13	ND	0.0013	30.8	NC	Yes	f.

N = 22

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Pond C MEDIA=Surface Water METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW7421	Lead	mg/L	3	ND	ND	0.0	NC	No	a.

N = 1

---------- YEAR=1994 SITE=Pond C MEDIA=Surface Water METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
Organic Lead	Organic Lead	mg/L	3	ND	ND	0.0	NC	No	a.

N = 1

---------- YEAR=1994 SITE=Pond D MEDIA=Sludges METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Antimony	mg/kg	10	ND	ND	0.0	NC	No	a.
SW7060	Arsenic	mg/kg	10	ND	3.7	80.0	NC	Yes	f.
SW6010	Barium	mg/kg	10	18.9	91.7	100.0	NC	Yes	f.
SW6010	Beryllium	mg/kg	10	ND	0.23	10.0	NC	Yes	f.

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Pond D MEDIA=Sludges METHOD=Inorganics ----------
(continued)

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Cadmium	mg/kg	10	ND	ND	0.0	NC	No	a.
SW6010	Chromium	mg/kg	10	ND	6.9	80.0	NC	Yes	f.
SW6010	Cobalt	mg/kg	10	ND	4.4	80.0	NC	Yes	f.
SW6010	Copper	mg/kg	10	2.8	35.5	100.0	NC	Yes	f.
SW7421	Lead	mg/kg	10	0.44	6	100.0	NC	Yes	f.
SW7471	Mercury	mg/kg	10	ND	ND	0.0	NC	No	a.
SW6010	Nickel	mg/kg	10	ND	8.1	90.0	NC	Yes	f.
SW7740	Selenium	mg/kg	10	ND	1.8	80.0	NC	Yes	f.
SW6010	Silver	mg/kg	10	ND	7.5	90.0	NC	Yes	f.
SW6010	Thallium	mg/kg	10	ND	1.2	10.0	NC	Yes	f.
SW6010	Tin	mg/kg	10	ND	ND	0.0	NC	No	a.
SW6010	Vanadium	mg/kg	10	4.3	24.9	100.0	NC	Yes	f.
SW6010	Zinc	mg/kg	10	7.4	53.6	100.0	NC	Yes	f.

N = 17

---------- YEAR=1994 SITE=Pond D MEDIA=Sludges METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDD	mg/kg	10	ND	0.032	90.0	NC	Yes	f.
SW8080	4,4'-DDE	mg/kg	10	ND	0.014	80.0	NC	Yes	f.

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Pond D MEDIA=Sludges METHOD=Organics ----------
(continued)

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDT	mg/kg	10	ND	0.097	60.0	NC	Yes	f.
SW8080	Aldrin	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8080	Chlordane	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8080	Diallate	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8080	Dieldrin	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan I	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan II	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan Sulfate	mg/kg	10	ND	1.2E-6	10.0	NC	Yes	f.
SW8080	Endrin	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8080	Endrin Aldehyde	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8270	Heptachlor epoxide	mg/kg	2	ND	ND	0.0	NC	No	a.
SW8270	Isodrin	mg/kg	2	ND	ND	0.0	NC	No	a.
SW8080	Methoxychlor	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8080	Toxaphene	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8080	alpha-BHC	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8080	beta-BHC	mg/kg	10	ND	ND	0.0	NC	No	a.
SW8080	delta-BHC	mg/kg	10	ND	0.0027	60.0	NC	Yes	f.
SW8080	gamma-BHC	mg/kg	10	ND	ND	0.0	NC	No	a.

N = 21

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Pond D MEDIA=Surface Water METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW7421	Lead	mg/L	3	ND	ND	0.0	NC	No	a.

N = 1

---------- YEAR=1994 SITE=Pond D MEDIA=Surface Water METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
Organic Lead	Organic Lead	mg/L	3	ND	ND	0.0	NC	No	a.

N = 1

---------- YEAR=1994 SITE=Pond E MEDIA=Sludges METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Antimony	mg/kg	16	ND	ND	0.0	NC	No	a.
SW7060	Arsenic	mg/kg	16	0.66	6.6	100.0	NC	Yes	f.
SW6010	Barium	mg/kg	16	32.8	179	100.0	NC	Yes	f.
SW6010	Beryllium	mg/kg	16	ND	0.53	43.8	NC	Yes	f.

Table 1-1

Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Pond E MEDIA=Sludges METHOD=Inorganics ----------

(continued)

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Cadmium	mg/kg	16	ND	ND	0.0	NC	No	a.
SW6010	Chromium	mg/kg	16	2.8	72.4	100.0	NC	Yes	f.
SW6010	Cobalt	mg/kg	16	0.7	5.9	100.0	NC	Yes	f.
SW6010	Copper	mg/kg	16	3.5	67.1	100.0	NC	Yes	f.
SW7421	Lead	mg/kg	16	ND	9.7	93.8	NC	Yes	f.
SW7471	Mercury	mg/kg	16	ND	0.59	50.0	NC	Yes	f.
SW6010	Nickel	mg/kg	16	ND	11.7	87.5	NC	Yes	f.
SW7740	Selenium	mg/kg	16	ND	3	93.8	NC	Yes	f.
SW6010	Silver	mg/kg	16	0.93	87.1	100.0	NC	Yes	f.
SW6010	Thallium	mg/kg	16	ND	1.8	6.3	NC	Yes	f.
SW6010	Tin	mg/kg	16	ND	41.7	6.3	NC	Yes	f.
SW6010	Vanadium	mg/kg	16	9.9	52.7	100.0	NC	Yes	f.
SW6010	Zinc	mg/kg	16	10.2	118	100.0	NC	Yes	f.

N = 17

---------- YEAR=1994 SITE=Pond E MEDIA=Sludges METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDD	mg/kg	16	0.0045	0.13	100.0	NC	Yes	f.
SW8080	4,4'-DDE	mg/kg	16	0.00099	0.15	100.0	NC	Yes	f.

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Pond E MEDIA=Sludges METHOD=Organics ----------
(continued)

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDT	mg/kg	16	ND	0.046	43.8	NC	Yes	f.
SW8080	Aldrin	mg/kg	16	ND	ND	0.0	NC	No	a.
SW8080	Chlordane	mg/kg	16	ND	ND	0.0	NC	No	a.
SW8080	Diallate	mg/kg	16	ND	ND	0.0	NC	No	a.
SW8080	Dieldrin	mg/kg	16	ND	0.00031	6.3	NC	Yes	f.
SW8080	Endosulfan I	mg/kg	16	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan II	mg/kg	16	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan Sulfate	mg/kg	16	ND	ND	0.0	NC	No	a.
SW8080	Endrin	mg/kg	16	ND	ND	0.0	NC	No	a.
SW8080	Endrin Aldehyde	mg/kg	16	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor	mg/kg	16	ND	ND	0.0	NC	No	a.
SW8270	Heptachlor epoxide	mg/kg	8	ND	ND	0.0	NC	No	a.
SW8270	Isodrin	mg/kg	8	ND	ND	0.0	NC	No	a.
SW8080	Methoxychlor	mg/kg	16	ND	ND	0.0	NC	No	a.
SW8080	Toxaphene	mg/kg	16	ND	ND	0.0	NC	No	a.
SW8080	alpha-BHC	mg/kg	16	ND	0.00055	43.8	NC	Yes	f.
SW8080	beta-BHC	mg/kg	16	ND	ND	0.0	NC	No	a.
SW8080	delta-BHC	mg/kg	16	ND	0.0025	12.5	NC	Yes	f.
SW8080	gamma-BHC	mg/kg	16	ND	0.00058	6.3	NC	Yes	f.

N = 21

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Pond E MEDIA=Surface Water METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW7421	Lead	mg/L	3	ND	ND	0.0	NC	No	a.

N = 1

---------- YEAR=1994 SITE=Pond E MEDIA=Surface Water METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
Organic Lead	Organic Lead	mg/L	3	ND	ND	0.0	NC	No	a.

N = 1

---------- YEAR=1994 SITE=Pond G MEDIA=Sludges METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Antimony	mg/kg	19	ND	ND	0.0	NC	No	a.
SW7060	Arsenic	mg/kg	19	0.6	5.2	100.0	NC	Yes	f.
SW6010	Barium	mg/kg	19	34.7	156	100.0	NC	Yes	f.
SW6010	Beryllium	mg/kg	19	ND	0.54	47.4	NC	Yes	f.

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Pond G MEDIA=Sludges METHOD=Inorganics ----------
(continued)

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Cadmium	mg/kg	19	ND	ND	0.0	NC	No	a.
SW6010	Chromium	mg/kg	19	ND	21.2	89.5	NC	Yes	f.
SW6010	Cobalt	mg/kg	19	ND	5.8	89.5	NC	Yes	f.
SW6010	Copper	mg/kg	19	1.2	36.8	100.0	NC	Yes	f.
SW7421	Lead	mg/kg	19	0.55	29.4	100.0	NC	Yes	f.
SW7471	Mercury	mg/kg	19	ND	0.32	5.3	NC	Yes	f.
SW6010	Nickel	mg/kg	19	ND	14.2	84.2	NC	Yes	f.
SW7740	Selenium	mg/kg	19	ND	2.2	89.5	NC	Yes	f.
SW6010	Silver	mg/kg	19	ND	6.6	57.9	NC	Yes	f.
SW6010	Thallium	mg/kg	19	ND	ND	0.0	NC	No	a.
SW6010	Tin	mg/kg	19	ND	ND	0.0	NC	No	a.
SW6010	Vanadium	mg/kg	19	3.5	38.3	100.0	NC	Yes	f.
SW6010	Zinc	mg/kg	19	4.9	68.4	100.0	NC	Yes	f.

N = 17

---------- YEAR=1994 SITE=Pond G MEDIA=Sludges METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDD	mg/kg	19	ND	0.43	89.5	NC	Yes	f.
SW8080	4,4'-DDE	mg/kg	19	ND	0.097	73.7	NC	Yes	f.

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Pond G MEDIA=Sludges METHOD=Organics ----------
(continued)

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDT	mg/kg	19	ND	0.026	5.3	NC	Yes	f.
SW8080	Aldrin	mg/kg	19	ND	ND	0.0	NC	No	a.
SW8080	Chlordane	mg/kg	19	ND	0.036	15.8	NC	Yes	f.
SW8080	Diallate	mg/kg	19	ND	ND	0.0	NC	No	a.
SW8080	Dieldrin	mg/kg	19	ND	0.00052	5.3	NC	Yes	f.
SW8080	Endosulfan I	mg/kg	19	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan II	mg/kg	19	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan Sulfate	mg/kg	19	ND	ND	0.0	NC	No	a.
SW8080	Endrin	mg/kg	19	ND	ND	0.0	NC	No	a.
SW8080	Endrin Aldehyde	mg/kg	19	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor	mg/kg	19	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor epoxide	mg/kg	19	ND	0.0016	21.1	NC	Yes	f.
SW8080	Isodrin	mg/kg	19	ND	ND	0.0	NC	No	a.
MRI-SOP	Kepone	mg/kg	12	ND	0.007	8.3	NC	Yes	f.
SW8080	Methoxychlor	mg/kg	19	ND	ND	0.0	NC	No	a.
SW8080	Toxaphene	mg/kg	19	ND	ND	0.0	NC	No	a.
SW8080	alpha-BHC	mg/kg	19	ND	0.00019	10.5	NC	Yes	f.
SW8080	beta-BHC	mg/kg	19	ND	ND	0.0	NC	No	a.
SW8080	delta-BHC	mg/kg	19	ND	0.00083	10.5	NC	Yes	f.
SW8080	gamma-BHC	mg/kg	19	ND	0.00017	10.5	NC	Yes	f.

N = 22

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1994 SITE=Pond G MEDIA=Surface Water METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW7421	Lead	mg/L	9	ND	ND	0.0	NC	No	a.

N = 1

---------- YEAR=1994 SITE=Pond G MEDIA=Surface Water METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
Organic Lead	Organic Lead	mg/L	9	ND	ND	0.0	NC	No	a.

N = 1

---------- YEAR=1995 SITE=Pond A MEDIA=Sludges METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW9030	Sulfide, Reactive	mg/kg	6	2	48.3	100.0	NC	Yes	f.
E376.2	Sulfide, Total	mg/kg	6	2.6	33.6	100.0	NC	Yes	f.

N = 2

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1995 SITE=Pond A MEDIA=Sludges METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	Aroclor-1016	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Aroclor-1221	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Aroclor-1232	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Aroclor-1242	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Aroclor-1248	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Aroclor-1254	mg/kg	6	0.3	7.1	100.0	NC	Yes	f.
SW8080	Aroclor-1260	mg/kg	6	ND	ND	0.0	NC	No	a.

N = 7

---------- YEAR=1995 SITE=Pond B MEDIA=Sludges METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW9030	Sulfide, Reactive	mg/kg	6	ND	77.7	50.0	NC	Yes	f.
E376.2	Sulfide, Total	mg/kg	6	ND	11.6	50.0	NC	Yes	f.

N = 2

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1995 SITE=Pond B MEDIA=Sludges METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	Aroclor-1016	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Aroclor-1221	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Aroclor-1232	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Aroclor-1242	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Aroclor-1248	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Aroclor-1254	mg/kg	6	0.062	5.3	100.0	NC	Yes	f.
SW8080	Aroclor-1260	mg/kg	6	ND	ND	0.0	NC	No	a.

N = 7

---------- YEAR=1995 SITE=Pond C MEDIA=Sludges METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW9030	Sulfide, Reactive	mg/kg	6	7.8	134	100.0	NC	Yes	f.
E376.2	Sulfide, Total	mg/kg	6	4.5	473	100.0	NC	Yes	f.

N = 2

Table 1-1

Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1995 SITE=Pond D MEDIA=Sludges METHOD=Inorganics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW6010	Antimony	mg/kg	6	ND	ND	0.0	NC	No	a.
SW7060	Arsenic	mg/kg	6	1.5	2.5	100.0	NC	Yes	f.
SW6010	Barium	mg/kg	6	32.7	88.9	100.0	NC	Yes	f.
SW6010	Beryllium	mg/kg	6	0.33	0.81	100.0	NC	Yes	f.
SW6010	Cadmium	mg/kg	6	ND	ND	0.0	NC	No	a.
SW6010	Chromium	mg/kg	6	3.6	9.8	100.0	NC	Yes	f.
SW6010	Cobalt	mg/kg	6	2.3	5.3	100.0	NC	Yes	f.
SW6010	Copper	mg/kg	6	11.6	44.4	100.0	NC	Yes	f.
SW7421	Lead	mg/kg	6	2.4	31.4	100.0	NC	Yes	f.
SW7471	Mercury	mg/kg	6	ND	ND	0.0	NC	No	a.
SW6010	Nickel	mg/kg	6	ND	4.6	33.3	NC	Yes	f.
SW7740	Selenium	mg/kg	6	ND	1.1	83.3	NC	Yes	f.
SW6010	Silver	mg/kg	6	ND	12.4	83.3	NC	Yes	f.
SW6010	Tin	mg/kg	6	ND	14	33.3	NC	Yes	f.
SW6010	Vanadium	mg/kg	6	12.3	27.5	100.0	NC	Yes	f.
SW6010	Zinc	mg/kg	6	24.5	60.7	100.0	NC	Yes	f.

N = 16

Table 1-1
Holloman Lakes & Lagoons COPC Conclusions For 1994 and 1995

---------- YEAR=1995 SITE=Pond D MEDIA=Sludges METHOD=Organics ----------

Method	Analyte	Units	N	Min	Max	Freq of Occ.	UTL for Blanks	COPC?	Footnote
SW8080	4,4'-DDD	mg/kg	6	0.00065	0.13	100.0	NC	Yes	f.
SW8080	4,4'-DDE	mg/kg	6	0.00031	0.033	100.0	NC	Yes	f.
SW8080	4,4'-DDT	mg/kg	6	ND	0.051	83.3	NC	Yes	f.
SW8080	Aldrin	mg/kg	6	ND	0.00026	16.7	NC	Yes	f.
SW8080	Chlordane	mg/kg	6	ND	0.0081	33.3	NC	Yes	f.
SW8080	Chlorobenzilate	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Diallate	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Dieldrin	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan I	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Endosulfan II	mg/kg	6	ND	0.0029	33.3	NC	Yes	f.
SW8080	Endosulfan Sulfate	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Endrin	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Endrin Aldehyde	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Heptachlor epoxide	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Isodrin	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Kepone	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Methoxychlor	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	Toxaphene	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	alpha-BHC	mg/kg	6	ND	0.0017	66.7	NC	Yes	f.
SW8080	beta-BHC	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	delta-BHC	mg/kg	6	ND	ND	0.0	NC	No	a.
SW8080	gamma-BHC	mg/kg	6	ND	ND	0.0	NC	No	a.

N = 23

ND = Not detected
NC = Not calculated
UTL = Upper tolerance limit

a. No measureable results on site';
b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).' ;
c. Average metal concentration on site not significantly greater than average background metal concentration (alpha = 0.20).' ;
d. Frequency of occurrence > 0%.' ;
e. Frequency of occurrence = 0%.' ;

Note: An "occurrence" is a result > blank UTL if there is a blank UTL.
If no blank UTL exists then an "occurrence" is any measured result.

Table 1-2
Site Comparisons to Background

16:30 Thursday, June 1, 1995

---------- Year=1994 Site=Ditch Media=Soils ----------

Analytical Method	Analyte	Units	Bkgrd Hits	Bkgrd Mean	Bkgrd Max	Site Hits	Site Mean	Site Max	Test Type	P-Val for Test	Test Concl	Test Power (1)	UTL for Bkgrd (2)	N > UTL for Bkgrd	COPC?	Footnote
SW6010	Antimony	mg/kg	58/58	-0.677	7.841	0/4	10.611	ND	None	NC	NC	NC	7.284	0	No	a
SW7060	Arsenic	mg/kg	60/60	0.116	8.238	4/4	2.075	2.8	t-Test	0.0003	S	0.2078	6.883	0	Yes	b
SW6010	Barium	mg/kg	9/9	35.778	65.000	4/4	97.950	123	t-Test	0.0001	S	0.6517	84.363	3	Yes	b
SW6010	Beryllium	mg/kg	9/9	0.132	0.400	4/4	0.690	1.1	Wilcoxon	0.0095	S	0.1232	0.400	4	Yes	b
SW6010	Cadmium	mg/kg	58/58	0.015	0.560	0/4	0.625	ND	None	NC	NC	NC	0.560	0	No	a
SW6010	Chromium	mg/kg	9/9	2.340	4.800	4/4	20.975	40.8	Wilcoxon	0.0097	S	0.1228	6.605	4	Yes	b
SW6010	Cobalt	mg/kg	9/9	0.916	1.700	4/4	4.800	5.6	t-Test	0.0000	S	0.5420	2.485	4	Yes	b
SW6010	Copper	mg/kg	9/9	2.922	3.800	4/4	14.450	28	Wilcoxon	0.0097	S	0.1228	4.844	4	Yes	b
SW7421	Lead	mg/kg	7/7	2.686	8.000	4/4	22.575	63.5	Wilcoxon	0.0275	S	0.1228	8.000	2	Yes	b
SW7471	Mercury	mg/kg	37/37	-0.027	-0.008	0/4	0.112	ND	None	NC	NC	NC	-0.001	0	No	a
SW6010	Nickel	mg/kg	9/9	2.389	4.700	4/4	12.050	15.1	t-Test	0.0000	S	0.5870	5.612	4	Yes	b
SW7740	Selenium	mg/kg	62/62	-0.461	12.910	3/4	0.529	0.88	t-Test	0.0856	S	0.1818	10.531	0	Yes	b
SW6010	Silver	mg/kg	59/59	-0.201	1.156	2/4	1.447	2.6	t-Test	0.0000	S	0.1229	0.734	2	Yes	b
SW6010	Thallium	mg/kg	61/61	0.904	12.330	1/4	0.309	0.58	t-Test	0.8111	NS	0.2410	11.315	0	No	c
SW6010	Tin	mg/kg	58/58	-0.012	4.078	0/4	8.703	ND	None	NC	NC	NC	3.174	0	No	a
SW6010	Vanadium	mg/kg	9/9	6.633	11.000	4/4	28.375	34.1	t-Test	0.0000	S	0.6591	15.460	4	Yes	b
SW6010	Zinc	mg/kg	9/9	6.724	15.000	4/4	50.500	80.5	t-Test	0.0127	S	0.3192	20.246	4	Yes	b

N = 17

Table 1-2
Site Comparisons to Background

16:30 Thursday, June 1, 1995

---------- Year=1994 Site=Ditch Media=Surface Water ----------

Analytical Method	Analyte	Units	Bkgrd Hits	Bkgrd Mean	Bkgrd Max	Site Hits	Site Mean	Site Max	Test Type	P-Val for Test	Test Concl	Test Power (1)	UTL for Bkgrd (2)	N > UTL for Bkgrd	COPC?	Footnote
SW7421	Lead	mg/L	13/13	0.001	0.012	0/3	0.133	ND	None	NC	NC	NC	0.020	0	No	a

N = 1

---------- Year=1994 Site=Lake Holloman Media=Surface Water ----------

Analytical Method	Analyte	Units	Bkgrd Hits	Bkgrd Mean	Bkgrd Max	Site Hits	Site Mean	Site Max	Test Type	P-Val for Test	Test Concl	Test Power (1)	UTL for Bkgrd (2)	N > UTL for Bkgrd	COPC?	Footnote
SW7421	Lead	mg/L	13/13	0.001	0.012	0/14	0.095	ND	None	NC	NC	NC	0.020	0	No	a

N = 1

Table 1-2
Site Comparisons to Background

16:30 Thursday, June 1, 1995

---------- Year=1994 Site=Lake Stinky Media=Soils ----------

Analytical Method	Analyte	Units	Bkgrd Hits	Bkgrd Mean	Bkgrd Max	Site Hits	Site Mean	Site Max	Test Type	P-Val for Test	Test Concl	Test Power (1)	UTL for Bkgrd (2)	N > UTL for Bkgrd	COPC?	Footnote
SW6010	Antimony	mg/kg	58/58	-0.677	7.841	0/11	8.038	ND	None	NC	NC	NC	7.284	0	No	a
SW7060	Arsenic	mg/kg	60/60	0.116	8.238	11/11	2.127	2.7	t-Test	0.0000	S	0.2130	6.883	0	Yes	b
SW6010	Barium	mg/kg	9/9	35.778	65.000	11/11	54.345	89.7	t-Test	0.0127	S	0.8460	84.363	1	Yes	b
SW6010	Beryllium	mg/kg	9/9	0.132	0.400	3/11	0.287	0.69	Wilcoxon	0.0772	S	0.1334	0.400	2	Yes	b
SW6010	Cadmium	mg/kg	58/58	0.015	0.560	0/11	0.609	ND	None	NC	NC	NC	0.560	0	No	a
SW6010	Chromium	mg/kg	9/9	2.340	4.800	11/11	5.073	12.7	t-Test	0.0147	S	0.4692	6.605	3	Yes	b
SW6010	Cobalt	mg/kg	9/9	0.916	1.700	11/11	2.477	6.2	Wilcoxon	0.0017	S	0.0992	2.485	3	Yes	b
SW6010	Copper	mg/kg	9/9	2.922	3.800	11/11	5.900	9	t-Test	0.0002	S	0.8186	4.844	8	Yes	b
SW7421	Lead	mg/kg	7/7	2.686	8.000	8/11	1.885	6.5	Wilcoxon	0.8228	NS	0.1963	8.000	0	No	c
SW7471	Mercury	mg/kg	37/37	-0.027	-0.008	0/11	0.062	ND	None	NC	NC	NC	-0.001	0	No	a
SW6010	Nickel	mg/kg	9/9	2.389	4.700	11/11	5.536	14.5	t-Test	0.0088	S	0.4657	5.612	4	Yes	b
SW7740	Selenium	mg/kg	62/62	-0.461	12.910	3/11	0.156	0.45	Wilcoxon	0.1304	S	0.1612	10.531	0	Yes	b
SW6010	Silver	mg/kg	59/59	-0.201	1.156	0/11	0.727	ND	None	NC	NC	NC	0.734	0	No	a
SW6010	Thallium	mg/kg	61/61	0.904	12.330	0/11	0.834	ND	None	NC	NC	NC	11.315	0	No	a
SW6010	Tin	mg/kg	58/58	-0.012	4.078	0/11	90.809	ND	None	NC	NC	NC	3.174	0	No	a
SW6010	Vanadium	mg/kg	9/9	6.633	11.000	11/11	10.891	30.5	Wilcoxon	0.0936	S	0.1357	15.460	2	Yes	b
SW6010	Zinc	mg/kg	9/9	6.724	15.000	11/11	19.591	34.9	t-Test	0.0002	S	0.5264	20.246	5	Yes	b

N = 17

Table 1-2
Site Comparisons to Background

16:30 Thursday, June 1, 1995

---------- Year=1994 Site=Pond C Media=Surface Water ----------

Analytical Method	Analyte	Units	Bkgrd Hits	Bkgrd Mean	Bkgrd Max	Site Hits	Site Mean	Site Max	Test Type	P-Val for Test	Test Concl	Test Power (1)	UTL for Bkgrd (2)	N > UTL for Bkgrd	COPC?	Footnote
SW7421	Lead	mg/L	13/13	0.001	0.012	0/3	0.004	ND	None	NC	NC	NC	0.020	0	No	a

N = 1

---------- Year=1994 Site=Pond D Media=Surface Water ----------

Analytical Method	Analyte	Units	Bkgrd Hits	Bkgrd Mean	Bkgrd Max	Site Hits	Site Mean	Site Max	Test Type	P-Val for Test	Test Concl	Test Power (1)	UTL for Bkgrd (2)	N > UTL for Bkgrd	COPC?	Footnote
SW7421	Lead	mg/L	13/13	0.001	0.012	0/3	0.005	ND	None	NC	NC	NC	0.020	0	No	a

N = 1

Table 1-2
Site Comparisons to Background

16:30 Thursday, June 1, 1995

Year=1994 Site=Pond E Media=Surface Water

Analytical Method	Analyte	Units	Bkgrd Hits	Bkgrd Mean	Bkgrd Max	Site Hits	Site Mean	Site Max	Test Type	P-Val for Test	Test Concl	Test Power (1)	UTL for Bkgrd (2)	N > UTL for Bkgrd	COPC?	Footnote
SW7421	Lead	mg/L	13/13	0.001	0.012	0/3	0.004	ND	None	NC	NC	NC	0.020	0	No	a

N = 1

Year=1994 Site=Pond G Media=Surface Water

Analytical Method	Analyte	Units	Bkgrd Hits	Bkgrd Mean	Bkgrd Max	Site Hits	Site Mean	Site Max	Test Type	P-Val for Test	Test Concl	Test Power (1)	UTL for Bkgrd (2)	N > UTL for Bkgrd	COPC?	Footnote
SW7421	Lead	mg/L	13/13	0.001	0.012	0/9	0.010	ND	None	NC	NC	NC	0.020	0	No	a

N = 1

S = One-tailed test statistically significant at the alpha = 0.20 significance level
NS = One-tailed test not statistically significant at the alpha = 0.20 significance level
ND = Not detected
NC = Not calculated
UTL= Upper tolerance limit

(1) = Power to detect a difference of 40% between background and the site (alpha=0.20)
(2) = Upper tolerance limit for the 95th percentile for background at the 95% confidence level

a. No measureable results on site or maximum measured result is negative.
b. Average metal concentration on site significantly greater than average background metal concentration (alpha = 0.20).
c. Average metal concentration on site not significantly greater than average background metal concentration (alpha = 0.20).
d. Frequency of occurrence > 0%
e. Frequency of occurrence = 0%

Table 1-3
Holloman Sewage Lagoons COPCs
For 1994 and 1995 Data Only

SITE=Ditch MEDIA=Soils METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	Chlordane	mg/kg	4	1	ND	0.15000	0.03966	0.12624
SW8080	Dieldrin	mg/kg	4	1	ND	0.00072	0.00050	0.00072
SW8080	Endosulfan Sulfate	mg/kg	4	1	ND	0.00002	0.00002	0.00002
SW8080	Endrin	mg/kg	4	1	ND	0.00170	0.00090	0.00189
SW8080	Methoxychlor	mg/kg	4	1	ND	0.00023	0.00016	0.00022

N = 5

SITE=Lake Holloman MEDIA=Sludges METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW6010	Beryllium	mg/kg	25	9	ND	3.50000	0.44451	0.67327
SW6010	Cadmium	mg/kg	25	1	ND	1.80000	0.71711	0.88118
SW6010	Silver	mg/kg	25	10	ND	4.70000	1.08162	1.45974
SW6010	Thallium	mg/kg	25	5	ND	3.50000	0.81453	1.08667

N = 4

Table 1-3
Holloman Sewage Lagoons COPCs
For 1994 and 1995 Data Only

SITE=Lake Holloman MEDIA=Sludges METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	Chlordane	mg/kg	25	13	ND	0.36000	0.01940	0.04377
MRI-SOP	Kepone	mg/kg	15	1	ND	0.01700	0.00875	0.01129

N = 2

SITE=Lake Stinky MEDIA=Soils METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW6010	Copper	mg/kg	11	11	3.60000	9.00000	5.90000	6.93196

N = 1

SITE=Lake Stinky MEDIA=Soils METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	4,4'-DDD	mg/kg	11	3	ND	0.00016	0.00003	0.00005
SW8080	4,4'-DDT	mg/kg	11	3	ND	0.00520	0.00114	0.00196

Table 1-3
Holloman Sewage Lagoons COPCs
For 1994 and 1995 Data Only

SITE=Lake Stinky MEDIA=Soils METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	Dieldrin	mg/kg	11	5	ND	0.00420	0.00061	0.00132
SW8080	Heptachlor	mg/kg	11	4	ND	0.00210	0.00031	0.00067

N = 4

SITE=Pond A MEDIA=Sludges METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW9030	Sulfide, Reactive	mg/kg	6	6	2.00000	48.30000	14.05000	28.80063

N = 1

SITE=Pond A MEDIA=Sludges METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	Aroclor-1254	mg/kg	6	6	0.30000	7.10000	2.70000	4.67571

Table 1-3
Holloman Sewage Lagoons COPCs
For 1994 and 1995 Data Only

SITE=Pond A MEDIA=Sludges METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
E376.2	Sulfide, Total	mg/kg	6	6	2.60000	33.60000	13.61667	23.65509

N = 2

SITE=Pond B MEDIA=Sludges METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW9030	Sulfide, Reactive	mg/kg	6	3	ND	77.70000	15.76673	40.84391

N = 1

SITE=Pond B MEDIA=Sludges METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	Aroclor-1254	mg/kg	6	6	0.06200	5.30000	2.19367	3.70521
E376.2	Sulfide, Total	mg/kg	6	3	ND	11.60000	3.70155	7.20880

N = 2

Table 1-3
Holloman Sewage Lagoons COPCs
For 1994 and 1995 Data Only

SITE=Pond C MEDIA=Sludges METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW9030	Sulfide, Reactive	mg/kg	6	6	7.80000	134.00000	65.51667	101.91543
SW6010	Tin	mg/kg	13	7	ND	27.90000	12.54302	17.29617

N = 2

SITE=Pond C MEDIA=Sludges METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	Dieldrin	mg/kg	13	3	ND	0.00430	0.00199	0.00256
MRI-SOP	Kepone	mg/kg	8	1	ND	0.00360	0.00185	0.00275
E376.2	Sulfide, Total	mg/kg	6	6	4.50000	473.00000	123.58333	268.91970
SW8080	alpha-BHC	mg/kg	13	5	ND	0.00100	0.00014	0.00028
SW8080	gamma-BHC	mg/kg	13	4	ND	0.00130	0.00046	0.00064

N = 5

Table 1-3
Holloman Sewage Lagoons COPCs
For 1994 and 1995 Data Only

---------- SITE=Pond D MEDIA=Sludges METHOD=Inorganics ----------

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW7060	Arsenic	mg/kg	16	14	ND	3.70000	1.73798	2.13309
SW6010	Barium	mg/kg	16	16	18.90000	91.70000	53.71250	62.40926
SW6010	Beryllium	mg/kg	16	7	ND	0.81000	0.30586	0.42557
SW6010	Chromium	mg/kg	16	14	ND	9.80000	4.16265	5.28937
SW6010	Cobalt	mg/kg	16	14	ND	5.30000	2.39814	3.04674
SW6010	Copper	mg/kg	16	16	2.80000	44.40000	19.06250	24.37268
SW7421	Lead	mg/kg	16	16	0.44000	31.40000	4.41688	7.63932
SW6010	Nickel	mg/kg	16	11	ND	8.10000	3.24878	4.24577
SW7740	Selenium	mg/kg	16	13	ND	1.80000	0.74300	0.98017
SW6010	Silver	mg/kg	16	14	ND	12.40000	4.12523	5.53519
SW6010	Thallium	mg/kg	10	1	ND	1.20000	0.67000	0.85496
SW6010	Tin	mg/kg	6	2	ND	14.00000	8.44026	12.06774
SW6010	Vanadium	mg/kg	16	16	4.30000	27.50000	16.87500	19.84824
SW6010	Zinc	mg/kg	16	16	7.40000	60.70000	31.98750	39.12278

N = 14

---------- SITE=Pond D MEDIA=Sludges METHOD=Organics ----------

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	4,4'-DDD	mg/kg	16	15	ND	0.13000	0.01774	0.03230

Table 1-3
Holloman Sewage Lagoons COPCs
For 1994 and 1995 Data Only

SITE=Pond D MEDIA=Sludges METHOD=Organics
(continued)

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	4,4'-DDE	mg/kg	16	14	ND	0.03300	0.00550	0.00913
SW8080	4,4'-DDT	mg/kg	16	11	ND	0.09700	0.01261	0.02407
SW8080	Aldrin	mg/kg	6	1	ND	0.00026	0.00016	0.00021
SW8080	Chlordane	mg/kg	6	2	ND	0.00810	0.00230	0.00464
SW8080	Endosulfan II	mg/kg	6	2	ND	0.00290	0.00125	0.00209
SW8080	Endosulfan Sulfate	mg/kg	10	1	ND	0.00000	0.00000	0.00000
SW8080	alpha-BHC	mg/kg	6	4	ND	0.00170	0.00073	0.00132
SW8080	delta-BHC	mg/kg	10	6	ND	0.00270	0.00058	0.00103

N = 9

SITE=Pond E MEDIA=Sludges METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW6010	Beryllium	mg/kg	16	7	ND	0.53000	0.21968	0.29548
SW6010	Cobalt	mg/kg	16	16	0.70000	5.90000	3.08125	3.75968
SW6010	Thallium	mg/kg	16	1	ND	1.80000	0.85504	1.10960

N = 3

Table 1-3
Holloman Sewage Lagoons COPCs
For 1994 and 1995 Data Only

SITE=Pond E MEDIA=Sludges METHOD=Organics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	Dieldrin	mg/kg	16	1	ND	0.00031	0.00015	0.00019
SW8080	alpha-BHC	mg/kg	16	7	ND	0.00055	0.00011	0.00018
SW8080	delta-BHC	mg/kg	16	2	ND	0.00250	0.00093	0.00123
SW8080	gamma-BHC	mg/kg	16	1	ND	0.00058	0.00024	0.00032

N = 4

SITE=Pond G MEDIA=Sludges METHOD=Inorganics

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW6010	Silver	mg/kg	19	11	ND	6.60000	2.33116	3.21361

N = 1

Table 1-3
Holloman Sewage Lagoons COPCs
For 1994 and 1995 Data Only

---------- SITE=Pond G MEDIA=Sludges METHOD=Organics ----------

Analytical Method	Analyte	Units	N	Hits	Minimum	Maximum	Mean (a)	95% UCL (a,b)
SW8080	Chlordane	mg/kg	19	3	ND	0.03600	0.00794	0.01190
SW8080	Dieldrin	mg/kg	19	1	ND	0.00052	0.00032	0.00037
SW8080	Heptachlor epoxide	mg/kg	19	4	ND	0.00160	0.00017	0.00033
MRI-SOP	Kepone	mg/kg	12	1	ND	0.00700	0.00436	0.00537
SW8080	delta-BHC	mg/kg	19	2	ND	0.00083	0.00029	0.00037
SW8080	gamma-BHC	mg/kg	19	2	ND	0.00017	0.00009	0.00010

N = 6

ND = Not detected
NC = Not calculated

a. Random uniform numbers between zero and the smaller of the minimum j-flagged result and RL substituted for non-detected values
b. One-sided 95% upper confidence limit for the mean

Table 1-4
Holloman Sewage Lagoons COPCs
For Updated 1995 Risk Assessment

SITE=Ditch MEDIA=Soils METHOD=Inorganics

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW7060	Arsenic	mg/kg	2.9831	5.0455632	2.7410	4.208357	0.91882	0.834070
SW6010	Barium	mg/kg	63.1818	80.835358	72.4533	87.781135	1.14674	1.0859249
SW6010	Beryllium	mg/kg	0.6686	0.7591200	0.6743	0.7602501	1.00852	1.0014886
SW6010	Chromium	mg/kg	8.7091	11.918531	11.9800	16.412685	1.37557	1.3770727
SW6010	Cobalt	mg/kg	4.4341	5.2559056	4.5317	5.1426260	1.02201	0.9784471
SW6010	Copper	mg/kg	8.8591	10.869386	10.3500	12.996839	1.16829	1.1957288
SW7421	Lead	mg/kg	19.7686	40.199520	20.5170	36.008753	1.03786	0.8957508
SW6010	Nickel	mg/kg	8.1523	10.177094	9.1917	10.896206	1.12750	1.0706598
SW7740	Selenium	mg/kg	7.1000	NC	1.8429	4.6586785	0.25956	NC
SW6010	Silver	mg/kg	0.5900	NC	1.2754	2.0426929	2.16176	NC
SW6010	Vanadium	mg/kg	16.6477	21.759058	19.7750	24.228869	1.18785	1.1135072
SW6010	Zinc	mg/kg	30.9670	44.387892	36.1758	47.404435	1.16820	1.0679586

N = 12

Table 1-4
Holloman Sewage Lagoons COPCs
For Updated 1995 Risk Assessment

SITE=Ditch MEDIA=Soils METHOD=Organics

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW8080	4,4'-DDD	mg/kg	0.05580	0.120796	0.05139	0.0993719	0.92091	0.8226381
SW8080	4,4'-DDE	mg/kg	0.01315	0.0275123	0.01031	0.0206511	0.78343	0.7506121
SW8080	4,4'-DDT	mg/kg	0.01962	0.0487189	0.01478	0.0355946	0.75337	0.7306115
SW8080	Aldrin	mg/kg	0.00138	0.0015334	0.00178	0.0022720	1.29034	1.4816425
SW8080	delta-BHC	mg/kg	0.19678	0.3540413	0.14108	0.2563412	0.71693	0.7240431
SW8080	gamma-BHC	mg/kg	0.00230	0.0033242	0.00171	0.0025455	0.74527	0.7657480

N = 6

SITE=Lake Holloman MEDIA=Sludges METHOD=Inorganics

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW7060	Arsenic	mg/kg	2.9610	4.2501932	1.6765	2.0271514	0.56618	0.4769551
SW6010	Barium	mg/kg	95.7143	144.41156	74.8844	94.158219	0.78237	0.652013
SW6010	Chromium	mg/kg	10.6214	16.70779	6.7530	9.2664276	0.63579	0.5546171
SW6010	Cobalt	mg/kg	7.6143	12.001258	4.6407	7.577773	0.60947	0.6314148
SW6010	Copper	mg/kg	13.7162	20.620679	9.4788	11.728375	0.69107	0.5687676
SW7421	Lead	mg/kg	13.0643	21.768012	6.2094	8.4696054	0.47529	0.3890849
SW6010	Nickel	mg/kg	12.3214	18.610591	6.8873	9.3717351	0.55897	0.5035699

Table 1-4
Holloman Sewage Lagoons COPCs
For Updated 1995 Risk Assessment

SITE=Lake Holloman MEDIA=Sludges METHOD=Inorganics
(continued)

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW7740	Selenium	mg/kg	1.4049	1.9161134	0.5298	0.7338231	0.37710	0.3829747
SW6010	Vanadium	mg/kg	20.7429	30.787413	17.9875	24.935740	0.86717	0.8099329
SW6010	Zinc	mg/kg	37.1286	56.362023	26.6125	33.923608	0.71677	0.6018876

N = 10

SITE=Lake Holloman MEDIA=Sludges METHOD=Organics

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW8080	4,4'-DDD	mg/kg	0.09030	0.2553797	0.03205	0.0684395	0.35489	0.2679911
SW8080	4,4'-DDE	mg/kg	0.01446	0.0253227	0.00527	0.0083178	0.36419	0.3284742
SW8080	4,4'-DDT	mg/kg	0.00939	0.013375	0.00212	0.0034949	0.22587	0.2612990
SW8080	Dieldrin	mg/kg	0.04029	0.0675809	0.00919	0.0162017	0.22809	0.2397385
SW8080	alpha-BHC	mg/kg	0.00529	0.0071836	0.00119	0.0019361	0.22583	0.2695145
SW8080	delta-BHC	mg/kg	1.09211	3.0100441	0.23906	0.6098225	0.21889	0.2025958
SW8080	gamma-BHC	mg/kg	0.00649	0.0096067	0.00149	0.0024713	0.22951	0.2572479

N = 7

Table 1-4
Holloman Sewage Lagoons COPCs
For Updated 1995 Risk Assessment

SITE=Lake Stinky MEDIA=Soils METHOD=Inorganics

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW7060	Arsenic	mg/kg	2.7000	3.3783921	2.3684	2.6684922	0.87719	0.7898704
SW6010	Barium	mg/kg	72.2500	79.960376	61.8842	68.850924	0.85653	0.8610630
SW6010	Beryllium	mg/kg	0.6422	0.7145384	0.4367	0.5348488	0.67999	0.7485235
SW6010	Chromium	mg/kg	7.0250	9.0291742	5.8947	7.2056735	0.83911	0.798043
SW6010	Cobalt	mg/kg	3.5125	3.9585278	2.9132	3.396348	0.82937	0.8579827
SW6010	Nickel	mg/kg	6.9393	7.238347	6.0819	7.2589487	0.87645	1.0028461
SW7740	Selenium	mg/kg	0.4543	0.5140255	0.2721	0.3519809	0.59905	0.6847538
SW6010	Vanadium	mg/kg	13.9969	16.842693	12.1987	14.694413	0.87153	0.8724503
SW6010	Zinc	mg/kg	23.1250	29.837088	21.0789	24.547241	0.91152	0.8227090

N = 9

SITE=Lake Stinky MEDIA=Soils METHOD=Organics

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW8080	Aldrin	mg/kg	0.00751	0.0132395	0.00330	0.0058862	0.43953	0.4445980
SW8080	Endrin	mg/kg	0.00637	0.0114020	0.00288	0.0049682	0.45231	0.4357338
SW8080	alpha-BHC	mg/kg	0.00551	0.009953	0.00240	0.0043696	0.43553	0.4389979
SW8080	delta-BHC	mg/kg	0.88496	1.8412645	0.37265	0.7693069	0.42110	0.4178144

Table 1-4
Holloman Sewage Lagoons COPCs
For Updated 1995 Risk Assessment

SITE=Lake Stinky MEDIA=Soils METHOD=Organics
(continued)

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW8080	gamma-BHC	mg/kg	0.01025	0.018975	.0044636	0.0082761	0.43547	0.4361462

N = 5

SITE=Pond C MEDIA=Sludges METHOD=Inorganics

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW7060	Arsenic	mg/kg	1.650	2.15442	1.7152	2.006136	1.03952	0.9311712
SW6010	Barium	mg/kg	90.500	100.23283	92.2400	101.66826	1.01923	1.0143209
SW6010	Beryllium	mg/kg	0.319	0.4150567	0.2618	0.3185223	0.82008	0.7674188
SW6010	Cadmium	mg/kg	3.892	5.087304	2.1813	2.8016207	0.56052	0.5507082
SW6010	Chromium	mg/kg	50.267	69.153912	45.7480	56.766727	0.91011	0.820875
SW6010	Cobalt	mg/kg	5.250	6.4913748	4.4360	5.1512278	0.84495	0.7935495
SW6010	Copper	mg/kg	104.867	156.29334	92.0800	118.39546	0.87807	0.7575208
SW7421	Lead	mg/kg	22.308	31.915425	17.3340	22.40326	0.77702	0.7019571
SW7471	Mercury	mg/kg	0.958	1.2478473	0.5983	0.7878195	0.62431	0.6313428
SW6010	Nickel	mg/kg	9.613	11.468800	9.7620	11.184994	1.01555	0.9752541
SW7740	Selenium	mg/kg	2.267	3.4254317	1.8304	2.4189964	0.80755	0.7061873

Table 1-4
Holloman Sewage Lagoons COPCs
For Updated 1995 Risk Assessment

SITE=Pond C MEDIA=Sludges METHOD=Inorganics
(continued)

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW6010	Silver	mg/kg	95.442	152.39286	85.990	115.40191	0.90097	0.7572658
SW6010	Vanadium	mg/kg	32.167	39.117999	33.728	38.081900	1.04854	0.9735135
SW6010	Zinc	mg/kg	141.417	194.71114	123.900	152.81226	0.87613	0.784815

N = 14

SITE=Pond C MEDIA=Sludges METHOD=Organics

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW8080	4,4'-DDD	mg/kg	2.32275	4.7158529	1.21509	2.3483020	0.52313	0.4979591
SW8080	4,4'-DDE	mg/kg	0.99296	2.1671170	0.55802	1.1041823	0.56198	0.5095167
SW8080	4,4'-DDT	mg/kg	0.16883	0.260586	0.05694	0.0959931	0.33725	0.3683729
SW8080	Endosulfan I	mg/kg	0.82611	1.712430	0.33966	0.6973302	0.41115	0.40721
SW8080	delta-BHC	mg/kg	1.50667	3.0265854	0.47626	0.9578515	0.31610	0.3164792

N = 5

Table 1-4
Holloman Sewage Lagoons COPCs
For Updated 1995 Risk Assessment

SITE=Pond E MEDIA=Sludges METHOD=Inorganics

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW7060	Arsenic	mg/kg	1.7875	2.3044803	1.8575	2.3164300	1.0392	1.0051854
SW6010	Barium	mg/kg	72.8333	93.299828	81.5818	94.368624	1.1201	1.0114554
SW6010	Chromium	mg/kg	19.4833	26.994251	18.1500	23.716857	0.9316	0.8785891
SW6010	Copper	mg/kg	37.3667	57.234516	26.6364	34.142404	0.7128	0.5965352
SW7421	Lead	mg/kg	12.2333	15.991517	6.6662	8.4709358	0.5449	0.5297143
SW7471	Mercury	mg/kg	0.2688	0.387941	0.1657	0.2250456	0.6165	0.5801016
SW6010	Nickel	mg/kg	6.8986	9.2809453	5.6961	6.9396455	0.8257	0.7477304
SW7740	Selenium	mg/kg	1.4798	2.0512484	1.0417	1.3304429	0.7040	0.6486015
SW6010	Silver	mg/kg	22.2167	33.730150	20.9059	28.619219	0.9410	0.8484759
SW6010	Tin	mg/kg	0.2700	NC	18.5965	24.405142	68.8758	NC
SW6010	Vanadium	mg/kg	25.1833	33.203194	28.0500	32.728458	1.1138	0.9857020
SW6010	Zinc	mg/kg	54.0500	75.509634	45.0909	55.487358	0.8342	0.7348381

N = 12

SITE=Pond E MEDIA=Sludges METHOD=Organics

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW8080	4,4'-DDD	mg/kg	1.003	2.6479294	0.27729	0.607439	0.27646	0.2294016

Table 1-4
Holloman Sewage Lagoons COPCs
For Updated 1995 Risk Assessment

SITE=Pond E MEDIA=Sludges METHOD=Organics
(continued)

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW8080	4,4'-DDE	mg/kg	0.3688	0.8191293	0.11465	0.2120363	0.31087	0.2588557
SW8080	4,4'-DDT	mg/kg	0.1012	0.1260193	0.02928	0.0459823	0.28936	0.3648830

N = 3

SITE=Pond G MEDIA=Sludges METHOD=Inorganics

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW7060	Arsenic	mg/kg	2.0833	2.6976569	2.6208	3.0233701	1.25798	1.120739
SW6010	Barium	mg/kg	87.6667	102.61670	83.9720	93.496751	0.95786	0.9111260
SW6010	Beryllium	mg/kg	0.5796	0.765750	0.3279	0.4023231	0.56579	0.5253974
SW6010	Chromium	mg/kg	13.8333	16.749550	9.7402	11.76777	0.70411	0.7025727
SW6010	Cobalt	mg/kg	4.3500	5.4484632	3.3270	3.8618753	0.76483	0.7088008
SW6010	Copper	mg/kg	19.0208	24.051908	16.0650	19.364216	0.84460	0.8051010
SW7421	Lead	mg/kg	64.8833	152.23965	26.4704	44.962147	0.40797	0.2953379
SW7471	Mercury	mg/kg	0.1414	0.1965921	0.1492	0.1805677	1.05519	0.9184889
SW6010	Nickel	mg/kg	8.4375	10.369817	7.1729	8.3313411	0.85013	0.8034221
SW7740	Selenium	mg/kg	1.0710	1.4886911	0.9581	1.1914921	0.89462	0.8003622

Table 1-4
Holloman Sewage Lagoons COPCs
For Updated 1995 Risk Assessment

SITE=Pond G MEDIA=Sludges METHOD=Inorganics
(continued)

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW6010	Vanadium	mg/kg	22.5000	27.564416	19.884	22.801253	0.88373	0.8271988
SW6010	Zinc	mg/kg	45.6667	58.030009	41.280	48.278044	0.90394	0.8319496

N = 12

SITE=Pond G MEDIA=Sludges METHOD=Organics

Analytical Method	Analyte	Units	1993 RA Mean (a)	1993 RA 95% UCL (a,b)	Combined Data Mean (a)	Combined Data 95% UCL (a,b)	Ratio of 1993 Mean to Combined Mean	Ratio of 1993 UCL to Combined UCL
SW8080	4,4'-DDD	mg/kg	0.82500	1.7809311	0.23756	0.4546897	0.28795	0.2553101
SW8080	4,4'-DDE	mg/kg	0.17817	0.3102124	0.06374	0.0988024	0.35776	0.3184991
SW8080	4,4'-DDT	mg/kg	0.08217	0.117042	0.02669	0.039900	0.32481	0.3409088
SW8080	alpha-BHC	mg/kg	0.04743	0.0740188	0.01140	0.0200883	0.24034	0.2713951

N = 4

RA = Risk Assessment
NC = Not calculated

a. Random uniform numbers between zero and the smaller of the minimum j-flagged result and RL substituted for non-detected values
b. One-sided 95% upper confidence limit for the mean

APPENDIX C

Raw Data

---------- Site=Ditch MEDIA=Soils Analyte=4,4'-DDD Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	0.0027	0.0027	DET	0.0015	mg/kg	C@
1992	29FEB92	DT-01	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	29FEB92	DT-02	S	0.0057	0.0057	DET	0.0013	mg/kg	C@
1992	29FEB92	DT-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	29FEB92	DT-03	S	0.0013	0.0013	DET	0.0013	mg/kg	
1992	29FEB92	DT-03	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	29FEB92	DT-04	S	0.0160	0.0160	DET	0.0016	mg/kg	C
1992	29FEB92	DT-04	S	0.0013	0.0013	DET	0.0014	mg/kg	JX
1992	29FEB92	DT-05	S	0.3500	0.3500	DET	0.0018	mg/kg	C
1992	29FEB92	DT-05	S	0.0025	0.0025	DET	0.0014	mg/kg	C@
1993	01APR93	DT-05	S	0.2300	0.2300	DET	0.0550	mg/kg	@
1994	02NOV94	01DT	S	0.1400	0.1400	DET	0.0190	mg/kg	V
1994	02NOV94	02DT	S	0.0001	0.0001	DET	0.0045	mg/kg	J
1994	02NOV94	03DT	S	0.0120	0.0120	DET	0.0052	mg/kg	V
1994	02NOV94	04DT	S	0.0049	0.0049	DET	0.0052	mg/kg	J

N = 15

---------- Site=Ditch MEDIA=Soils Analyte=4,4'-DDE Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	0.0026	0.002600	DET	0.0015	mg/kg	C@
1992	29FEB92	DT-01	S	0.0015	0.001500	DET	0.0015	mg/kg	
1992	29FEB92	DT-02	S	0.0021	0.002100	DET	0.0013	mg/kg	C@
1992	29FEB92	DT-02	S	0.0014	0.001400	DET	0.0014	mg/kg	
1992	29FEB92	DT-03	S	0.0014	0.001400	DET	0.0013	mg/kg	C@
1992	29FEB92	DT-03	S	0.0014	0.001400	DET	0.0014	mg/kg	
1992	29FEB92	DT-04	S	0.0037	0.003700	DET	0.0016	mg/kg	C@
1992	29FEB92	DT-04	S	0.0013	0.001300	DET	0.0014	mg/kg	JC
1992	29FEB92	DT-05	S	0.0470	0.047000	DET	0.0180	mg/kg	CD@
1992	29FEB92	DT-05	S	0.0013	0.001300	DET	0.0014	mg/kg	JC
1993	01APR93	DT-05	S	0.0810	0.081000	DET	0.0550	mg/kg	@
1994	02NOV94	01DT	S	.	0.001293	ND	0.0190	mg/kg	
1994	02NOV94	02DT	S	.	0.001892	ND	0.0045	mg/kg	
1994	02NOV94	03DT	S	0.0048	0.004800	DET	0.0052	mg/kg	VJ
1994	02NOV94	04DT	S	0.0019	0.001900	DET	0.0052	mg/kg	VJ

N = 15

---------- Site=Ditch MEDIA=Soils Analyte=4,4'-DDT Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	0.00310	0.00310	DET	0.0029	mg/kg	C@
1992	29FEB92	DT-01	S	0.00310	0.00310	DET	0.0031	mg/kg	
1992	29FEB92	DT-02	S	0.00270	0.00270	DET	0.0027	mg/kg	
1992	29FEB92	DT-02	S	0.00270	0.00270	DET	0.0027	mg/kg	
1992	29FEB92	DT-03	S	0.00170	0.00170	DET	0.0025	mg/kg	CJ
1992	29FEB92	DT-03	S	0.00290	0.00290	DET	0.0029	mg/kg	
1992	29FEB92	DT-04	S	0.00310	0.00310	DET	0.0031	mg/kg	
1992	29FEB92	DT-04	S	0.00280	0.00280	DET	0.0028	mg/kg	
1992	29FEB92	DT-05	S	0.01100	0.01100	DET	0.0037	mg/kg	C@
1992	29FEB92	DT-05	S	0.00270	0.00270	DET	0.0027	mg/kg	
1993	01APR93	DT-05	S	0.18000	0.18000	DET	0.1100	mg/kg	@
1994	02NOV94	01DT	S	.	0.00063	ND	0.0190	mg/kg	V
1994	02NOV94	02DT	S	.	0.00076	ND	0.0045	mg/kg	V
1994	02NOV94	03DT	S	0.00360	0.00360	DET	0.0052	mg/kg	J
1994	02NOV94	04DT	S	0.00091	0.00091	DET	0.0052	mg/kg	J

N = 15

---------- Site=Ditch MEDIA=Soils Analyte=Acetone Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.	0.1125	ND	0.15	mg/kg	
1992	29FEB92	DT-01	S	.	0.1125	ND	0.15	mg/kg	
1992	29FEB92	DT-02	S	.	0.0975	ND	0.13	mg/kg	
1992	29FEB92	DT-02	S	.	0.1050	ND	0.14	mg/kg	
1992	29FEB92	DT-03	S	.	0.0975	ND	0.13	mg/kg	
1992	29FEB92	DT-03	S	0.045	0.0450	DET	0.15	mg/kg	J
1992	29FEB92	DT-04	S	.	0.1200	ND	0.16	mg/kg	
1992	29FEB92	DT-04	S	.	0.1050	ND	0.14	mg/kg	
1992	29FEB92	DT-05	S	0.110	0.1100	DET	0.18	mg/kg	J
1992	29FEB92	DT-05	S	0.044	0.0440	DET	0.14	mg/kg	J

N = 10

---------- Site=Ditch MEDIA=Soils Analyte=Aldrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.00120	.00120	DET	.0015	mg/kg	JC
1992	29FEB92	DT-01	S	.00150	.00150	DET	.0015	mg/kg	
1992	29FEB92	DT-02	S	.00076	.00076	DET	.0013	mg/kg	JX
1992	29FEB92	DT-02	S	.00140	.00140	DET	.0014	mg/kg	
1992	29FEB92	DT-03	S	.00130	.00130	DET	.0013	mg/kg	

---------- Site=Ditch MEDIA=Soils Analyte=Aldrin Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-03	S	.0014	.0014000	DET	.0014	mg/kg	
1992	29FEB92	DT-04	S	.0016	.0016000	DET	.0016	mg/kg	
1992	29FEB92	DT-04	S	.0014	.0014000	DET	.0014	mg/kg	
1992	29FEB92	DT-05	S	.0018	.0018000	DET	.0018	mg/kg	
1992	29FEB92	DT-05	S	.0014	.0014000	DET	.0014	mg/kg	
1994	02NOV94	01DT	S	.0038	.0038000	DET	.0096	mg/kg	TJ
1994	02NOV94	02DT	S	.	.0034515	ND	.0023	mg/kg	T
1994	02NOV94	03DT	S	.	.0035188	ND	.0027	mg/kg	T
1994	02NOV94	04DT	S	.	.0003269	ND	.0027	mg/kg	T

N = 14

---------- Site=Ditch MEDIA=Soils Analyte=Antimony Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	DT-05	S	96	96	DET	12	mg/kg	

N = 1

---------- Site=Ditch MEDIA=Soils Analyte=Arsenic Method=SW7060 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	1.90	1.9000	DET	0.48	mg/kg	@
1992	29FEB92	DT-01	S	2.20	2.2000	DET	0.51	mg/kg	@
1992	29FEB92	DT-02	S	0.78	0.7800	DET	0.75	mg/kg	@
1992	29FEB92	DT-02	S	.	0.2345	ND	0.43	mg/kg	
1992	29FEB92	DT-03	S	1.40	1.4000	DET	0.80	mg/kg	@
1992	29FEB92	DT-03	S	3.70	3.7000	DET	1.70	mg/kg	@
1992	29FEB92	DT-04	S	2.30	2.3000	DET	1.90	mg/kg	@
1992	29FEB92	DT-04	S	1.30	1.3000	DET	0.89	mg/kg	@
1992	29FEB92	DT-05	S	2.70	2.7000	DET	2.30	mg/kg	@
1992	29FEB92	DT-05	S	2.30	2.3000	DET	0.87	mg/kg	@
1993	01APR93	DT-05	S	14.00	14.0000	DET	0.98	mg/kg	
1994	02NOV94	01DT	S	2.80	2.8000	DET	1.40	mg/kg	
1994	02NOV94	02DT	S	2.20	2.2000	DET	1.40	mg/kg	
1994	02NOV94	03DT	S	1.70	1.7000	DET	0.79	mg/kg	
1994	02NOV94	04DT	S	1.60	1.6000	DET	0.79	mg/kg	

N = 15

---------- Site=Ditch MEDIA=Soils Analyte=Barium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	41.0	41.0	DET	4.9	mg/kg	
1992	29FEB92	DT-01	S	20.0	20.0	DET	4.9	mg/kg	@
1992	29FEB92	DT-02	S	46.0	46.0	DET	4.7	mg/kg	
1992	29FEB92	DT-02	S	19.0	19.0	DET	4.3	mg/kg	@
1992	29FEB92	DT-03	S	78.0	78.0	DET	3.7	mg/kg	
1992	29FEB92	DT-03	S	120.0	120.0	DET	4.7	mg/kg	
1992	29FEB92	DT-04	S	95.0	95.0	DET	4.5	mg/kg	
1992	29FEB92	DT-04	S	58.0	58.0	DET	4.0	mg/kg	
1992	29FEB92	DT-05	S	94.0	94.0	DET	5.3	mg/kg	
1992	29FEB92	DT-05	S	48.0	48.0	DET	3.9	mg/kg	
1993	01APR93	DT-05	S	76.0	76.0	DET	1.2	mg/kg	
1994	02NOV94	01DT	S	123.0	123.0	DET	2.8	mg/kg	
1994	02NOV94	02DT	S	66.4	66.4	DET	2.8	mg/kg	
1994	02NOV94	03DT	S	89.4	89.4	DET	3.2	mg/kg	
1994	02NOV94	04DT	S	113.0	113.0	DET	3.2	mg/kg	

N = 15

------ Site=Ditch MEDIA=Soils Analyte=Benzo(b)fluoranthene Method=SW8270 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	1.50	1.50	DET	1.5	mg/kg	
1992	29FEB92	DT-01	S	1.50	1.50	DET	1.5	mg/kg	
1992	29FEB92	DT-02	S	1.30	1.30	DET	1.3	mg/kg	
1992	29FEB92	DT-02	S	1.30	1.30	DET	1.3	mg/kg	
1992	29FEB92	DT-03	S	1.30	1.30	DET	1.3	mg/kg	
1992	29FEB92	DT-03	S	1.40	1.40	DET	1.4	mg/kg	
1992	29FEB92	DT-04	S	1.60	1.60	DET	1.6	mg/kg	
1992	29FEB92	DT-04	S	1.40	1.40	DET	1.4	mg/kg	
1992	29FEB92	DT-05	S	0.27	0.27	DET	1.8	mg/kg	JX
1992	29FEB92	DT-05	S	1.40	1.40	DET	1.4	mg/kg	
1993	01APR93	DT-05	S	0.13	0.13	DET	5.6	mg/kg	JX

N = 11

------ Site=Ditch MEDIA=Soils Analyte=Benzo(k)fluoranthene Method=SW8270 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	1.5	1.5	DET	1.5	mg/kg	
1992	29FEB92	DT-01	S	1.5	1.5	DET	1.5	mg/kg	
1992	29FEB92	DT-02	S	1.3	1.3	DET	1.3	mg/kg	
1992	29FEB92	DT-02	S	1.3	1.3	DET	1.3	mg/kg	

------ Site=Ditch MEDIA=Soils Analyte=Benzo(k)fluoranthene Method=SW8270 ------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-03	S	1.30	1.30	DET	1.3	mg/kg	
1992	29FEB92	DT-03	S	1.40	1.40	DET	1.4	mg/kg	
1992	29FEB92	DT-04	S	1.60	1.60	DET	1.6	mg/kg	
1992	29FEB92	DT-04	S	1.40	1.40	DET	1.4	mg/kg	
1992	29FEB92	DT-05	S	0.27	0.27	DET	1.8	mg/kg	JX
1992	29FEB92	DT-05	S	1.40	1.40	DET	1.4	mg/kg	
1993	01APR93	DT-05	S	0.13	0.13	DET	5.6	mg/kg	JX

N = 11

---------- Site=Ditch MEDIA=Soils Analyte=Beryllium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.	0.7425	ND	0.99	mg/kg	
1992	29FEB92	DT-01	S	.	0.7350	ND	0.98	mg/kg	
1992	29FEB92	DT-02	S	.	0.6975	ND	0.93	mg/kg	
1992	29FEB92	DT-02	S	.	0.6375	ND	0.85	mg/kg	
1992	29FEB92	DT-03	S	.	0.5475	ND	0.73	mg/kg	
1992	29FEB92	DT-03	S	0.98	0.9800	DET	0.93	mg/kg	@
1992	29FEB92	DT-04	S	.	0.6750	ND	0.90	mg/kg	
1992	29FEB92	DT-04	S	.	0.6000	ND	0.80	mg/kg	
1992	29FEB92	DT-05	S	.	0.8250	ND	1.10	mg/kg	
1992	29FEB92	DT-05	S	.	0.5850	ND	0.78	mg/kg	
1993	01APR93	DT-05	S	0.33	0.3300	DET	0.24	mg/kg	@
1994	02NOV94	01DT	S	0.56	0.5600	DET	0.57	mg/kg	J
1994	02NOV94	02DT	S	1.10	1.1000	DET	0.55	mg/kg	
1994	02NOV94	03DT	S	0.55	0.5500	DET	0.63	mg/kg	J
1994	02NOV94	04DT	S	0.55	0.5500	DET	0.64	mg/kg	J

N = 15

---------- Site=Ditch MEDIA=Soils Analyte=Cadmium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	DT-05	S	0.88	0.88	DET	0.61	mg/kg	@

N = 1

-------- Site=Ditch MEDIA=Soils Analyte=Carbon disulfide Method=SW8240 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.	0.005475	ND	.0073	mg/kg	
1992	29FEB92	DT-01	S	.	0.005775	ND	.0077	mg/kg	
1992	29FEB92	DT-02	S	.	0.005025	ND	.0067	mg/kg	
1992	29FEB92	DT-02	S	.	0.005100	ND	.0068	mg/kg	
1992	29FEB92	DT-03	S	.	0.004800	ND	.0064	mg/kg	
1992	29FEB92	DT-03	S	.	0.005475	ND	.0073	mg/kg	
1992	29FEB92	DT-04	S	0.072	0.072000	DET	.0079	mg/kg	
1992	29FEB92	DT-04	S	.	0.005250	ND	.0070	mg/kg	
1992	29FEB92	DT-05	S	.	0.006900	ND	.0092	mg/kg	
1992	29FEB92	DT-05	S	.	0.005100	ND	.0068	mg/kg	

N = 10

---------- Site=Ditch MEDIA=Soils Analyte=Chlordane Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	02NOV94	01DT	S	0.15	0.15000	DET	0.0190	mg/kg	
1994	02NOV94	02DT	S	.	0.00153	ND	0.0045	mg/kg	
1994	02NOV94	03DT	S	.	0.00513	ND	0.0052	mg/kg	
1994	02NOV94	04DT	S	.	0.00199	ND	0.0052	mg/kg	

N = 4

---------- Site=Ditch MEDIA=Soils Analyte=Chromium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.	3.675	ND	4.9	mg/kg	
1992	29FEB92	DT-01	S	.	3.675	ND	4.9	mg/kg	
1992	29FEB92	DT-02	S	.	3.525	ND	4.7	mg/kg	
1992	29FEB92	DT-02	S	.	3.225	ND	4.3	mg/kg	
1992	29FEB92	DT-03	S	13.0	13.000	DET	3.7	mg/kg	@
1992	29FEB92	DT-03	S	18.0	18.000	DET	4.7	mg/kg	@
1992	29FEB92	DT-04	S	11.0	11.000	DET	4.5	mg/kg	@
1992	29FEB92	DT-04	S	4.6	4.600	DET	4.0	mg/kg	@
1992	29FEB92	DT-05	S	19.0	19.000	DET	5.3	mg/kg	@
1992	29FEB92	DT-05	S	6.7	6.700	DET	3.9	mg/kg	@
1993	01APR93	DT-05	S	9.4	9.400	DET	1.2	mg/kg	
1994	02NOV94	01DT	S	40.8	40.800	DET	2.8	mg/kg	
1994	02NOV94	02DT	S	18.0	18.000	DET	2.8	mg/kg	
1994	02NOV94	03DT	S	12.5	12.500	DET	3.2	mg/kg	
1994	02NOV94	04DT	S	12.6	12.600	DET	3.2	mg/kg	

N = 15

---------- Site=Ditch MEDIA=Soils Analyte=Chrysene Method=SW8270 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	1.50	1.50	DET	1.5	mg/kg	
1992	29FEB92	DT-01	S	1.50	1.50	DET	1.5	mg/kg	
1992	29FEB92	DT-02	S	1.30	1.30	DET	1.3	mg/kg	
1992	29FEB92	DT-02	S	1.30	1.30	DET	1.3	mg/kg	
1992	29FEB92	DT-03	S	1.30	1.30	DET	1.3	mg/kg	
1992	29FEB92	DT-03	S	1.40	1.40	DET	1.4	mg/kg	
1992	29FEB92	DT-04	S	1.60	1.60	DET	1.6	mg/kg	
1992	29FEB92	DT-04	S	1.40	1.40	DET	1.4	mg/kg	
1992	29FEB92	DT-05	S	0.32	0.32	DET	1.8	mg/kg	J
1992	29FEB92	DT-05	S	1.40	1.40	DET	1.4	mg/kg	

N = 10

---------- Site=Ditch MEDIA=Soils Analyte=Cobalt Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.	3.675	ND	4.9	mg/kg	
1992	29FEB92	DT-01	S	.	3.675	ND	4.9	mg/kg	
1992	29FEB92	DT-02	S	.	3.525	ND	4.7	mg/kg	
1992	29FEB92	DT-02	S	.	3.225	ND	4.3	mg/kg	
1992	29FEB92	DT-03	S	6.0	6.000	DET	3.7	mg/kg	@
1992	29FEB92	DT-03	S	7.3	7.300	DET	4.7	mg/kg	@
1992	29FEB92	DT-04	S	6.6	6.600	DET	4.5	mg/kg	@
1992	29FEB92	DT-04	S	.	3.000	ND	4.0	mg/kg	
1992	29FEB92	DT-05	S	.	3.975	ND	5.3	mg/kg	
1992	29FEB92	DT-05	S	4.6	4.600	DET	3.9	mg/kg	@
1993	01APR93	DT-05	S	3.2	3.200	DET	1.2	mg/kg	@
1994	02NOV94	01DT	S	5.6	5.600	DET	2.8	mg/kg	
1994	02NOV94	02DT	S	5.5	5.500	DET	2.8	mg/kg	
1994	02NOV94	03DT	S	4.1	4.100	DET	3.2	mg/kg	
1994	02NOV94	04DT	S	4.0	4.000	DET	3.2	mg/kg	

N = 15

---------- Site=Ditch MEDIA=Soils Analyte=Copper Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.	7.425	ND	9.9	mg/kg	
1992	29FEB92	DT-01	S	.	7.350	ND	9.8	mg/kg	
1992	29FEB92	DT-02	S	.	6.975	ND	9.3	mg/kg	
1992	29FEB92	DT-02	S	.	6.375	ND	8.5	mg/kg	
1992	29FEB92	DT-03	S	.	5.475	ND	7.3	mg/kg	

---------- Site=Ditch MEDIA=Soils Analyte=Copper Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-03	S	11.0	11.00	DET	9.3	mg/kg	@
1992	29FEB92	DT-04	S	11.0	11.00	DET	9.0	mg/kg	@
1992	29FEB92	DT-04	S	.	6.00	ND	8.0	mg/kg	
1992	29FEB92	DT-05	S	17.0	17.00	DET	11.0	mg/kg	@
1992	29FEB92	DT-05	S	.	5.85	ND	7.8	mg/kg	
1993	01APR93	DT-05	S	13.0	13.00	DET	2.4	mg/kg	
1994	02NOV94	01DT	S	28.0	28.00	DET	5.7	mg/kg	
1994	02NOV94	02DT	S	11.2	11.20	DET	5.5	mg/kg	
1994	02NOV94	03DT	S	9.4	9.40	DET	6.3	mg/kg	
1994	02NOV94	04DT	S	9.2	9.20	DET	6.4	mg/kg	

N = 15

---------- Site=Ditch MEDIA=Soils Analyte=Cyanide Method=SW9012 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	16.00	16.00	DET	0.60	mg/kg	
1992	29FEB92	DT-01	S	1.20	1.20	DET	0.37	mg/kg	@
1992	29FEB92	DT-02	S	0.69	0.69	DET	0.32	mg/kg	@
1992	29FEB92	DT-02	S	0.30	0.30	DET	0.30	mg/kg	
1992	29FEB92	DT-03	S	0.30	0.30	DET	0.30	mg/kg	
1992	29FEB92	DT-03	S	1.20	1.20	DET	0.33	mg/kg	@
1992	29FEB92	DT-04	S	0.40	0.40	DET	0.40	mg/kg	
1992	29FEB92	DT-04	S	0.83	0.83	DET	0.32	mg/kg	@
1992	29FEB92	DT-05	S	0.38	0.38	DET	0.38	mg/kg	
1992	29FEB92	DT-05	S	1.30	1.30	DET	0.33	mg/kg	@

N = 10

--------- Site=Ditch MEDIA=Soils Analyte=Cyclohexenone Method=SW8270 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	1.20	1.20	DET	.	mg/kg	
1992	29FEB92	DT-04	S	0.95	0.95	DET	.	mg/kg	

N = 2

---------- Site=Ditch MEDIA=Soils Analyte=Dieldrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	02NOV94	01DT	S	.00072	.00072000	DET	0.0190	mg/kg	VJ
1994	02NOV94	02DT	S	.	.00049466	ND	0.0045	mg/kg	
1994	02NOV94	03DT	S	.	.00026258	ND	0.0052	mg/kg	
1994	02NOV94	04DT	S	.	.00053494	ND	0.0052	mg/kg	

N = 4

------- Site=Ditch MEDIA=Soils Analyte=Endosulfan Sulfate Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	02NOV94	01DT	S	.	.000011703	ND	0.0190	mg/kg	
1994	02NOV94	02DT	S	.	.000018337	ND	0.0045	mg/kg	
1994	02NOV94	03DT	S	.	.000018445	ND	0.0052	mg/kg	
1994	02NOV94	04DT	S	.000024	.000024000	DET	0.0052	mg/kg	J

N = 4

---------- Site=Ditch MEDIA=Soils Analyte=Endrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	02NOV94	01DT	S	.0017	.0017000	DET	0.0190	mg/kg	J
1994	02NOV94	02DT	S	.	.0000352	ND	0.0045	mg/kg	
1994	02NOV94	03DT	S	.	.0015412	ND	0.0052	mg/kg	
1994	02NOV94	04DT	S	.	.0003344	ND	0.0052	mg/kg	

N = 4

-------- Site=Ditch MEDIA=Soils Analyte=Endrin aldehyde Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.0029	.0029	DET	.0029	mg/kg	
1992	29FEB92	DT-01	S	.0031	.0031	DET	.0031	mg/kg	
1992	29FEB92	DT-02	S	.0027	.0027	DET	.0027	mg/kg	
1992	29FEB92	DT-02	S	.0027	.0027	DET	.0027	mg/kg	
1992	29FEB92	DT-03	S	.0015	.0015	DET	.0025	mg/kg	CJ
1992	29FEB92	DT-03	S	.0029	.0029	DET	.0029	mg/kg	
1992	29FEB92	DT-04	S	.0031	.0031	DET	.0031	mg/kg	
1992	29FEB92	DT-04	S	.0028	.0028	DET	.0028	mg/kg	
1992	29FEB92	DT-05	S	.0037	.0037	DET	.0037	mg/kg	

-------- Site=Ditch MEDIA=Soils Analyte=Endrin aldehyde Method=SW8080 ---------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-05	S	.0027	.0027	DET	.0027	mg/kg	

N = 10

---------- Site=Ditch MEDIA=Soils Analyte=Fluoranthene Method=SW8270 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	DT-05	S	0.071	0.071	DET	5.6	mg/kg	J

N = 1

------- Site=Ditch MEDIA=Soils Analyte=Heptachlor epoxide Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	DT-05	S	12	12	DET	0.055	mg/kg	X

N = 1

---------- Site=Ditch MEDIA=Soils Analyte=Isodrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	0.00150	0.00150	DET	0.0015	mg/kg	
1992	29FEB92	DT-01	S	0.00150	0.00150	DET	0.0015	mg/kg	
1992	29FEB92	DT-02	S	0.00130	0.00130	DET	0.0013	mg/kg	
1992	29FEB92	DT-02	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	29FEB92	DT-03	S	0.00130	0.00130	DET	0.0013	mg/kg	
1992	29FEB92	DT-03	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	29FEB92	DT-04	S	0.00064	0.00064	DET	0.0016	mg/kg	CJ
1992	29FEB92	DT-04	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	29FEB92	DT-05	S	0.05500	0.05500	DET	0.0180	mg/kg	XD@
1992	29FEB92	DT-05	S	0.00140	0.00140	DET	0.0014	mg/kg	

N = 10

---------- Site=Ditch MEDIA=Soils Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	2.80	2.800	DET	0.36	mg/kg	
1992	29FEB92	DT-01	S	.	0.205	ND	0.38	mg/kg	
1992	29FEB92	DT-02	S	1.10	1.100	DET	0.28	mg/kg	@
1992	29FEB92	DT-02	S	0.65	0.650	DET	0.32	mg/kg	@
1992	29FEB92	DT-03	S	9.40	9.400	DET	0.60	mg/kg	
1992	29FEB92	DT-03	S	11.00	11.000	DET	0.63	mg/kg	
1992	29FEB92	DT-04	S	6.20	6.200	DET	0.35	mg/kg	
1992	29FEB92	DT-04	S	3.50	3.500	DET	0.33	mg/kg	
1992	29FEB92	DT-05	S	120.00	120.000	DET	8.70	mg/kg	
1992	29FEB92	DT-05	S	2.60	2.600	DET	0.33	mg/kg	
1993	01APR93	DT-05	S	60.00	60.000	DET	2.90	mg/kg	
1994	02NOV94	01DT	S	63.50	63.500	DET	7.10	mg/kg	
1994	02NOV94	02DT	S	7.40	7.400	DET	3.40	mg/kg	
1994	02NOV94	03DT	S	11.80	11.800	DET	3.90	mg/kg	
1994	02NOV94	04DT	S	7.60	7.600	DET	15.90	mg/kg	J

N = 15

---------- Site=Ditch MEDIA=Soils Analyte=Mercury Method=SW7471 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	0.410	0.410	DET	0.065	mg/kg	
1992	29FEB92	DT-01	S	0.069	0.069	DET	0.069	mg/kg	
1992	29FEB92	DT-02	S	0.540	0.540	DET	0.061	mg/kg	
1992	29FEB92	DT-02	S	0.061	0.061	DET	0.061	mg/kg	
1992	29FEB92	DT-03	S	0.057	0.057	DET	0.057	mg/kg	
1992	29FEB92	DT-03	S	0.065	0.065	DET	0.065	mg/kg	
1992	29FEB92	DT-04	S	0.071	0.071	DET	0.071	mg/kg	
1992	29FEB92	DT-04	S	0.062	0.062	DET	0.062	mg/kg	
1992	29FEB92	DT-05	S	0.082	0.082	DET	0.082	mg/kg	
1992	29FEB92	DT-05	S	0.062	0.062	DET	0.062	mg/kg	

N = 10

---------- Site=Ditch MEDIA=Soils Analyte=Methoxychlor Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	02NOV94	01DT	S	.00023	.00023000	DET	0.096	mg/kg	J
1994	02NOV94	02DT	S	.	.00017157	ND	0.023	mg/kg	
1994	02NOV94	03DT	S	.	.00010341	ND	0.027	mg/kg	
1994	02NOV94	04DT	S	.	.00014159	ND	0.027	mg/kg	

N = 4

------ Site=Ditch MEDIA=Soils Analyte=Methyl ethyl ketone Method=SW8240 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	0.150	0.150	DET	0.15	mg/kg	
1992	29FEB92	DT-01	S	0.150	0.150	DET	0.15	mg/kg	
1992	29FEB92	DT-02	S	0.130	0.130	DET	0.13	mg/kg	
1992	29FEB92	DT-02	S	0.140	0.140	DET	0.14	mg/kg	
1992	29FEB92	DT-03	S	0.130	0.130	DET	0.13	mg/kg	
1992	29FEB92	DT-03	S	0.150	0.150	DET	0.15	mg/kg	
1992	29FEB92	DT-04	S	0.160	0.160	DET	0.16	mg/kg	
1992	29FEB92	DT-04	S	0.140	0.140	DET	0.14	mg/kg	
1992	29FEB92	DT-05	S	0.027	0.027	DET	0.18	mg/kg	J
1992	29FEB92	DT-05	S	0.140	0.140	DET	0.14	mg/kg	

N = 10

---------- Site=Ditch MEDIA=Soils Analyte=Nickel Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.	7.425	ND	9.9	mg/kg	
1992	29FEB92	DT-01	S	.	7.350	ND	9.8	mg/kg	
1992	29FEB92	DT-02	S	.	6.975	ND	9.3	mg/kg	
1992	29FEB92	DT-02	S	.	6.375	ND	8.5	mg/kg	
1992	29FEB92	DT-03	S	8.8	8.800	DET	7.3	mg/kg	@
1992	29FEB92	DT-03	S	19.0	19.000	DET	9.3	mg/kg	@
1992	29FEB92	DT-04	S	.	6.750	ND	9.0	mg/kg	
1992	29FEB92	DT-04	S	.	6.000	ND	8.0	mg/kg	
1992	29FEB92	DT-05	S	.	8.250	ND	11.0	mg/kg	
1992	29FEB92	DT-05	S	.	5.850	ND	7.8	mg/kg	
1993	01APR93	DT-05	S	6.9	6.900	DET	2.4	mg/kg	@
1994	02NOV94	01DT	S	12.1	12.100	DET	11.3	mg/kg	
1994	02NOV94	02DT	S	15.1	15.100	DET	11.0	mg/kg	
1994	02NOV94	03DT	S	9.9	9.900	DET	12.6	mg/kg	J
1994	02NOV94	04DT	S	11.1	11.100	DET	12.7	mg/kg	J

N = 15

---------- Site=Ditch MEDIA=Soils Analyte=Pyrene Method=SW8270 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	DT-05	S	0.061	0.061	DET	5.6	mg/kg	J

N = 1

---------- Site=Ditch MEDIA=Soils Analyte=Selenium Method=SW7740 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	DT-05	S	7.10	7.10000	DET	0.61	mg/kg	
1994	02NOV94	01DT	S	0.88	0.88000	DET	1.40	mg/kg	J
1994	02NOV94	02DT	S	.	0.07449	ND	1.40	mg/kg	
1994	02NOV94	03DT	S	0.65	0.65000	DET	1.60	mg/kg	J
1994	02NOV94	04DT	S	0.51	0.51000	DET	0.79	mg/kg	J

N = 5

---------- Site=Ditch MEDIA=Soils Analyte=Silver Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	DT-05	S	0.59	0.59000	DET	1.2	mg/kg	@
1994	02NOV94	01DT	S	2.60	2.60000	DET	2.8	mg/kg	J
1994	02NDV94	02DT	S	.	0.72160	ND	2.8	mg/kg	
1994	02NOV94	03DT	S	.	1.06560	ND	3.2	mg/kg	
1994	02NOV94	04DT	S	1.40	1.40000	DET	3.2	mg/kg	J

N = 5

---------- Site=Ditch MEDIA=Soils Analyte=Sulfide Method=SW9030 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	35	35	DET	35	mg/kg	
1992	29FEB92	DT-01	S	36	36	DET	36	mg/kg	
1992	29FEB92	DT-02	S	33	33	DET	33	mg/kg	
1992	29FEB92	DT-02	S	57	57	DET	28	mg/kg	@
1992	29FEB92	DT-03	S	110	110	DET	30	mg/kg	@
1992	29FEB92	DT-03	S	190	190	DET	36	mg/kg	
1992	29FEB92	DT-04	S	180	180	DET	39	mg/kg	@
1992	29FEB92	DT-04	S	130	130	DET	34	mg/kg	@
1992	29FEB92	DT-05	S	390	390	DET	42	mg/kg	
1992	29FEB92	DT-05	S	33	33	DET	33	mg/kg	

N = 10

---------- Site=Ditch MEDIA=Soils Analyte=Thallium Method=SW7841 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	DT-05	S	0.22	0.22	DET	0.61	mg/kg	@

N = 1

---------- Site=Ditch MEDIA=Soils Analyte=Tin Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	DT-05	S	1.4	1.4	DET	73	mg/kg	@

N = 1

---------- Site=Ditch MEDIA=Soils Analyte=Toluene Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.00730	.00730	DET	.0073	mg/kg	
1992	29FEB92	DT-01	S	.00770	.00770	DET	.0077	mg/kg	
1992	29FEB92	DT-02	S	.00024	.00024	DET	.0067	mg/kg	J
1992	29FEB92	DT-02	S	.00680	.00680	DET	.0068	mg/kg	
1992	29FEB92	DT-03	S	.00640	.00640	DET	.0064	mg/kg	
1992	29FEB92	DT-03	S	.00730	.00730	DET	.0073	mg/kg	
1992	29FEB92	DT-04	S	.00030	.00030	DET	.0079	mg/kg	J
1992	29FEB92	DT-04	S	.00120	.00120	DET	.0070	mg/kg	J
1992	29FEB92	DT-05	S	.00920	.00920	DET	.0092	mg/kg	
1992	29FEB92	DT-05	S	.00680	.00680	DET	.0068	mg/kg	

N = 10

---------- Site=Ditch MEDIA=Soils Analyte=Vanadium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.	7.425	ND	9.9	mg/kg	
1992	29FEB92	DT-01	S	.	7.350	ND	9.8	mg/kg	
1992	29FEB92	DT-02	S	.	6.975	ND	9.3	mg/kg	
1992	29FEB92	DT-02	S	.	6.375	ND	8.5	mg/kg	
1992	29FEB92	DT-03	S	24.0	24.000	DET	7.3	mg/kg	@
1992	29FEB92	DT-03	S	32.0	32.000	DET	9.3	mg/kg	@
1992	29FEB92	DT-04	S	27.0	27.000	DET	9.0	mg/kg	@
1992	29FEB92	DT-04	S	11.0	11.000	DET	8.0	mg/kg	@
1992	29FEB92	DT-05	S	25.0	25.000	DET	11.0	mg/kg	@
1992	29FEB92	DT-05	S	17.0	17.000	DET	7.8	mg/kg	@
1993	01APR93	DT-05	S	19.0	19.000	DET	2.4	mg/kg	
1994	02NOV94	01DT	S	34.1	34.100	DET	2.8	mg/kg	
1994	02NOV94	02DT	S	27.3	27.300	DET	2.8	mg/kg	
1994	02NOV94	03DT	S	22.9	22.900	DET	3.2	mg/kg	
1994	02NOV94	04DT	S	29.2	29.200	DET	3.2	mg/kg	

N = 15

---------- Site=Ditch MEDIA=Soils Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	65.0	65.0000	DET	9.9	mg/kg	
1992	29FEB92	DT-01	S	.	7.3500	ND	9.8	mg/kg	
1992	29FEB92	DT-02	S	.	6.9750	ND	9.3	mg/kg	
1992	29FEB92	DT-02	S	.	5.3125	ND	8.5	mg/kg	
1992	29FEB92	DT-03	S	33.0	33.0000	DET	7.3	mg/kg	@
1992	29FEB92	DT-03	S	53.0	53.0000	DET	9.3	mg/kg	
1992	29FEB92	DT-04	S	30.0	30.0000	DET	9.0	mg/kg	@
1992	29FEB92	DT-04	S	10.0	10.0000	DET	8.0	mg/kg	@
1992	29FEB92	DT-05	S	71.0	71.0000	DET	11.0	mg/kg	
1992	29FEB92	DT-05	S	13.0	13.0000	DET	7.8	mg/kg	@
1993	01APR93	DT-05	S	46.0	46.0000	DET	2.4	mg/kg	
1994	02NOV94	01DT	S	80.5	80.5000	DET	5.7	mg/kg	
1994	02NOV94	02DT	S	51.5	51.5000	DET	5.5	mg/kg	
1994	02NOV94	03DT	S	36.2	36.2000	DET	6.3	mg/kg	
1994	02NOV94	04DT	S	33.8	33.8000	DET	6.4	mg/kg	

N = 15

---------- Site=Ditch MEDIA=Soils Analyte=alpha-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.0015	.0015	DET	.0015	mg/kg	
1992	29FEB92	DT-01	S	.0015	.0015	DET	.0015	mg/kg	
1992	29FEB92	DT-02	S	.0013	.0013	DET	.0013	mg/kg	
1992	29FEB92	DT-02	S	.0014	.0014	DET	.0014	mg/kg	
1992	29FEB92	DT-03	S	.0013	.0013	DET	.0013	mg/kg	
1992	29FEB92	DT-03	S	.0012	.0012	DET	.0014	mg/kg	JC
1992	29FEB92	DT-04	S	.0016	.0016	DET	.0016	mg/kg	
1992	29FEB92	DT-04	S	.0014	.0014	DET	.0014	mg/kg	
1992	29FEB92	DT-05	S	.0018	.0018	DET	.0018	mg/kg	
1992	29FEB92	DT-05	S	.0014	.0014	DET	.0014	mg/kg	

N = 10

-------- Site=Ditch MEDIA=Soils Analyte=alpha-Chlordane Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.00028	.00028	DET	.0015	mg/kg	JX
1992	29FEB92	DT-01	S	.00150	.00150	DET	.0015	mg/kg	
1992	29FEB92	DT-02	S	.00032	.00032	DET	.0013	mg/kg	JX
1992	29FEB92	DT-02	S	.00140	.00140	DET	.0014	mg/kg	
1992	29FEB92	DT-03	S	.00130	.00130	DET	.0013	mg/kg	

-------- Site=Ditch MEDIA=Soils Analyte=alpha-Chlordane Method=SW8080 ---------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-03	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	29FEB92	DT-04	S	0.00160	0.00160	DET	0.0016	mg/kg	
1992	29FEB92	DT-04	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	29FEB92	DT-05	S	0.00075	0.00075	DET	0.0180	mg/kg	JXD
1992	29FEB92	DT-05	S	0.00140	0.00140	DET	0.0014	mg/kg	
1993	01APR93	DT-05	S	0.04200	0.04200	DET	0.0550	mg/kg	J

N = 11

---------- Site=Ditch MEDIA=Soils Analyte=beta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.0058	.0058	DET	.0015	mg/kg	X@
1992	29FEB92	DT-01	S	.0015	.0015	DET	.0015	mg/kg	
1992	29FEB92	DT-02	S	.0013	.0013	DET	.0013	mg/kg	
1992	29FEB92	DT-02	S	.0014	.0014	DET	.0014	mg/kg	
1992	29FEB92	DT-03	S	.0013	.0013	DET	.0013	mg/kg	
1992	29FEB92	DT-03	S	.0014	.0014	DET	.0014	mg/kg	
1992	29FEB92	DT-04	S	.0016	.0016	DET	.0016	mg/kg	
1992	29FEB92	DT-04	S	.0014	.0014	DET	.0014	mg/kg	
1992	29FEB92	DT-05	S	.0018	.0018	DET	.0018	mg/kg	
1992	29FEB92	DT-05	S	.0014	.0014	DET	.0014	mg/kg	

N = 10

--- Site=Ditch MEDIA=Soils Analyte=bis(2-Ethylhexyl)phthalate Method=SW8270 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	0.830	0.830	DET	1.5	mg/kg	J
1992	29FEB92	DT-01	S	0.048	0.048	DET	1.5	mg/kg	J
1992	29FEB92	DT-02	S	1.100	1.100	DET	1.3	mg/kg	J
1992	29FEB92	DT-02	S	0.099	0.099	DET	1.3	mg/kg	J
1992	29FEB92	DT-03	S	0.800	0.800	DET	1.3	mg/kg	J
1992	29FEB92	DT-03	S	0.270	0.270	DET	1.4	mg/kg	J
1992	29FEB92	DT-04	S	0.067	0.067	DET	1.6	mg/kg	J
1992	29FEB92	DT-04	S	.	1.050	ND	1.4	mg/kg	
1992	29FEB92	DT-05	S	4.000	4.000	DET	1.8	mg/kg	@
1992	29FEB92	DT-05	S	0.150	0.150	DET	1.4	mg/kg	J
1993	01APR93	DT-05	S	0.390	0.390	DET	5.6	mg/kg	J

N = 11

---------- Site=Ditch MEDIA=Soils Analyte=delta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	0.11000	0.11000	DET	.0015	mg/kg	X
1992	29FEB92	DT-01	S	0.00180	0.00180	DET	.0015	mg/kg	C@
1992	29FEB92	DT-02	S	0.16000	0.16000	DET	.0013	mg/kg	X
1992	29FEB92	DT-02	S	0.00400	0.00400	DET	.0014	mg/kg	C@
1992	29FEB92	DT-03	S	0.05900	0.05900	DET	.0013	mg/kg	X
1992	29FEB92	DT-03	S	0.39000	0.39000	DET	.0014	mg/kg	X
1992	29FEB92	DT-04	S	0.28000	0.28000	DET	.0016	mg/kg	X
1992	29FEB92	DT-04	S	0.04700	0.04700	DET	.0014	mg/kg	X
1992	29FEB92	DT-05	S	0.88000	0.88000	DET	.0018	mg/kg	X
1992	29FEB92	DT-05	S	0.03600	0.03600	DET	.0014	mg/kg	X
1994	02NOV94	01DT	S	0.00520	0.00520	DET	.0096	mg/kg	J
1994	02NOV94	02DT	S	0.00035	0.00035	DET	.0023	mg/kg	J
1994	02NOV94	03DT	S	.	0.00004	ND	.0027	mg/kg	V
1994	02NOV94	04DT	S	0.00170	0.00170	DET	.0027	mg/kg	J

N = 14

---------- Site=Ditch MEDIA=Soils Analyte=gamma-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.00310	.0031000	DET	.0015	mg/kg	C@
1992	29FEB92	DT-01	S	.00150	.0015000	DET	.0015	mg/kg	
1992	29FEB92	DT-02	S	.00710	.0071000	DET	.0013	mg/kg	X
1992	29FEB92	DT-02	S	.00140	.0014000	DET	.0014	mg/kg	
1992	29FEB92	DT-03	S	.00210	.0021000	DET	.0013	mg/kg	C@
1992	29FEB92	DT-03	S	.00140	.0014000	DET	.0014	mg/kg	
1992	29FEB92	DT-04	S	.00180	.0018000	DET	.0016	mg/kg	X@
1992	29FEB92	DT-04	S	.00140	.0014000	DET	.0014	mg/kg	
1992	29FEB92	DT-05	S	.00180	.0018000	DET	.0018	mg/kg	
1992	29FEB92	DT-05	S	.00140	.0014000	DET	.0014	mg/kg	
1994	02NOV94	01DT	S	.00028	.0002800	DET	.0096	mg/kg	VJ
1994	02NOV94	02DT	S	.	.0002370	ND	.0023	mg/kg	
1994	02NOV94	03DT	S	.	.0002723	ND	.0027	mg/kg	V
1994	02NOV94	04DT	S	.	.0002084	ND	.0027	mg/kg	

N = 14

-------- Site=Ditch MEDIA=Soils Analyte=gamma-Chlordane Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-01	S	.0015	.0015	DET	.0015	mg/kg	
1992	29FEB92	DT-01	S	.0015	.0015	DET	.0015	mg/kg	

-------- Site=Ditch MEDIA=Soils Analyte=gamma-Chlordane Method=SW8080 ---------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	29FEB92	DT-02	S	0.00100	0.00100	DET	0.0013	mg/kg	JX
1992	29FEB92	DT-02	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	29FEB92	DT-03	S	0.00130	0.00130	DET	0.0013	mg/kg	
1992	29FEB92	DT-03	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	29FEB92	DT-04	S	0.00023	0.00023	DET	0.0016	mg/kg	JX
1992	29FEB92	DT-04	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	29FEB92	DT-05	S	0.00880	0.00880	DET	0.0180	mg/kg	JXD
1992	29FEB92	DT-05	S	0.00140	0.00140	DET	0.0014	mg/kg	
1993	01APR93	DT-05	S	0.06200	0.06200	DET	0.0550	mg/kg	@

N = 11

-------- Site=Ditch MEDIA=Surface Water Analyte=Dieldrin Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	05MAR93	DT-02	L	.000011	.000011	DET	.0000099	mg/L	X@

N = 1

-------- Site=Oitch MEDIA=Surface Water Analyte=Isodrin Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	05MAR93	DT-02	L	.0000061	.0000061	DET	.0000099	mg/L	J

N = 1

------- Site=Ditch MEDIA=Surface Water Analyte=alpha-BHC Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	05MAR93	DT-02	L	.0000078	.0000078	DET	.0000099	mg/L	JX

N = 1

------- Site=Lake Holloman MEDIA=Sludges Analyte=4,4'-DDD Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.00130	0.00130	DET	0.0013	mg/kg	
1992	27FEB92	LH-02	S	0.00530	0.00530	DET	0.0053	mg/kg	
1992	27FEB92	LH-03	S	0.00600	0.00600	DET	0.0067	mg/kg	
1992	28FEB92	LH-04	S	0.60000	0.60000	DET	0.0023	mg/kg	C
1992	28FEB92	LH-05	S	0.00800	0.00800	DET	0.0080	mg/kg	
1992	28FEB92	LH-06	S	0.00550	0.00550	DET	0.0055	mg/kg	
1992	28FEB92	LH-07	S	0.00600	0.00600	DET	0.0060	mg/kg	
1994	12NOV94	07LH	S	0.00120	0.00120	DET	0.0089	mg/kg	VJ
1994	11NOV94	08LH	S	0.00041	0.00041	DET	0.0059	mg/kg	J
1994	11NOV94	09LH	S	0.00310	0.00310	DET	0.0066	mg/kg	VJ
1994	11NOV94	10LH	S	0.00210	0.00210	DET	0.0081	mg/kg	VJ
1994	12NOV94	12LH	S	0.00300	0.00300	DET	0.0084	mg/kg	VJ
1994	11NOV94	13LH	S	.	0.00000	ND	0.0060	mg/kg	V
1994	11NOV94	14LH	S	0.00096	0.00096	DET	0.0095	mg/kg	J
1994	11NOV94	15LH	S	0.00200	0.00200	DET	0.0070	mg/kg	VJ
1994	11NOV94	16LH	S	0.36000	0.36000	DET	0.0770	mg/kg	V
1994	11NOV94	17LH	S	0.00110	0.00110	DET	0.0084	mg/kg	J
1994	12NOV94	18LH	S	0.00036	0.00036	DET	0.0055	mg/kg	J
1994	12NOV94	19LH	S	0.00034	0.00034	DET	0.0053	mg/kg	J
1994	12NOV94	20LH	S	0.00027	0.00027	DET	0.0056	mg/kg	J
1994	12NOV94	21LH	S	0.00300	0.00300	DET	0.0092	mg/kg	J
1994	12NOV94	22LH	S	0.00360	0.00360	DET	0.0130	mg/kg	J
1994	12NOV94	23LH	S	0.00370	0.00370	DET	0.0150	mg/kg	VJ
1994	12NOV94	24LH	S	0.00300	0.00300	DET	0.0300	mg/kg	VJ
1994	12NOV94	25LH	S	0.00450	0.00450	DET	0.0120	mg/kg	VJ
1994	03NOV94	01LH	S	0.00010	0.00010	DET	0.0047	mg/kg	J
1994	03NOV94	02LH	S	0.00002	0.00002	DET	0.0048	mg/kg	J
1994	03NOV94	03LH	S	.	0.00002	ND	0.0057	mg/kg	
1994	05NOV94	04LH	S	0.00031	0.00031	DET	0.0120	mg/kg	J
1994	12NOV94	05LH	S	0.00007	0.00007	DET	0.0052	mg/kg	J
1994	12NOV94	06LH	S	0.00023	0.00023	DET	0.0062	mg/kg	VJ
1994	11NOV94	11LH	S	.	0.00000	ND	0.0054	mg/kg	

N = 32

------- Site=Lake Holloman MEDIA=Sludges Analyte=4,4'-DDE Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.00130	0.00130	DET	.0013	mg/kg	
1992	27FEB92	LH-02	S	0.00530	0.00530	DET	.0053	mg/kg	
1992	27FEB92	LH-03	S	0.01155	0.01155	DET	.0067	mg/kg	X@
1992	28FEB92	LH-04	S	0.04500	0.04500	DET	.0023	mg/kg	C
1992	28FEB92	LH-05	S	0.00800	0.00800	DET	.0080	mg/kg	
1992	28FEB92	LH-06	S	0.00910	0.00910	DET	.0055	mg/kg	X@
1992	28FEB92	LH-07	S	0.02100	0.02100	DET	.0060	mg/kg	C@

------- Site=Lake Holloman MEDIA=Sludges Analyte=4,4'-DDE Method=SW8080 -------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	07LH	S	0.00083	0.000830	DET	0.0089	mg/kg	J
1994	11NOV94	08LH	S	0.00026	0.000260	DET	0.0059	mg/kg	J
1994	11NDV94	09LH	S	0.00220	0.002200	DET	0.0066	mg/kg	J
1994	11NDV94	10LH	S	0.00250	0.002500	DET	0.0081	mg/kg	J
1994	12NOV94	12LH	S	.	D.000093	ND	0.0084	mg/kg	
1994	11NOV94	13LH	S	0.00057	0.000570	DET	0.0060	mg/kg	J
1994	11NOV94	14LH	S	0.00072	0.000720	DET	0.0095	mg/kg	J
1994	11NOV94	15LH	S	0.00260	0.002600	DET	0.0070	mg/kg	J
1994	11NOV94	16LH	S	0.03500	0.035000	DET	0.0770	mg/kg	VJ
1994	11NOV94	17LH	S	0.00140	0.001400	DET	0.0084	mg/kg	VJ
1994	12NOV94	18LH	S	.	0.000239	ND	0.0055	mg/kg	
1994	12NOV94	19LH	S	.	0.000095	ND	0.0053	mg/kg	
1994	12NOV94	20LH	S	0.00031	0.000310	DET	0.0056	mg/kg	J
1994	12NOV94	21LH	S	0.00340	0.003400	DET	0.0092	mg/kg	J
1994	12NOV94	22LH	S	0.00390	0.003900	DET	0.0130	mg/kg	J
1994	12NOV94	23LH	S	0.00250	0.002500	DET	0.0150	mg/kg	J
1994	12NOV94	24LH	S	0.00340	0.003400	DET	0.0300	mg/kg	J
1994	12NOV94	25LH	S	0.00550	0.005500	DET	0.0120	mg/kg	VJ
1994	03NOV94	01LH	S	.	0.000105	ND	0.0047	mg/kg	
1994	03NOV94	02LH	S	.	0.000102	ND	0.0048	mg/kg	
1994	03NOV94	03LH	S	.	0.000048	ND	0.0057	mg/kg	
1994	05NOV94	04LH	S	.	0.000122	ND	0.0120	mg/kg	
1994	12NOV94	05LH	S	0.00043	0.000430	DET	0.0052	mg/kg	VJ
1994	12NOV94	06LH	S	0.00085	0.000850	DET	0.0062	mg/kg	J
1994	11NOV94	11LH	S	.	0.000141	ND	0.0054	mg/kg	

N = 32

------- Site=Lake Holloman MEDIA=Sludges Analyte=4,4'-DDT Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.0025	0.002500	DET	0.0025	mg/kg	
1992	27FEB92	LH-02	S	0.0110	0.011000	DET	0.0110	mg/kg	
1992	27FEB92	LH-03	S	0.0120	0.012000	DET	0.0130	mg/kg	
1992	28FEB92	LH-04	S	0.0012	0.001200	DET	0.0047	mg/kg	JX
1992	28FEB92	LH-05	S	0.0160	0.016000	DET	0.0160	mg/kg	
1992	28FEB92	LH-06	S	0.0110	0.011000	DET	0.0110	mg/kg	
1992	28FEB92	LH-07	S	0.0120	0.012000	DET	0.0120	mg/kg	
1994	12NOV94	07LH	S	.	0.000009	ND	0.0089	mg/kg	V
1994	11NOV94	08LH	S	.	0.000032	ND	0.0059	mg/kg	
1994	11NOV94	09LH	S	.	0.000006	ND	0.0066	mg/kg	V
1994	11NOV94	10LH	S	.	0.000034	ND	0.0081	mg/kg	V
1994	12NOV94	12LH	S	.	0.000035	ND	0.0084	mg/kg	
1994	11NOV94	13LH	S	.	0.000032	ND	0.0060	mg/kg	

------- Site=Lake Holloman MEDIA=Sludges Analyte=4,4'-DDT Method=SW8080 -------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	11NOV94	14LH	S	.	.0000318	ND	0.0095	mg/kg	V
1994	11NOV94	15LH	S	.	.0000093	ND	0.0070	mg/kg	
1994	11NOV94	16LH	S	.	.0000025	ND	0.0770	mg/kg	
1994	11NOV94	17LH	S	.	.0000385	ND	0.0084	mg/kg	
1994	12NOV94	18LH	S	.	.0000120	ND	0.0055	mg/kg	
1994	12NOV94	19LH	S	.	.0000078	ND	0.0053	mg/kg	
1994	12NOV94	20LH	S	.	.0000123	ND	0.0056	mg/kg	
1994	12NOV94	21LH	S	.	.0000283	ND	0.0092	mg/kg	
1994	12NOV94	22LH	S	.001600	.0016000	DET	0.0130	mg/kg	J
1994	12NOV94	23LH	S	.	.0000417	ND	0.0150	mg/kg	
1994	12NOV94	24LH	S	.	.0000216	ND	0.0300	mg/kg	
1994	12NOV94	25LH	S	.	.0000258	ND	0.0120	mg/kg	
1994	03NOV94	01LH	S	.	.0000114	ND	0.0047	mg/kg	
1994	03NOV94	02LH	S	.	.0000150	ND	0.0048	mg/kg	V
1994	03NOV94	03LH	S	.000045	.0000450	DET	0.0057	mg/kg	J
1994	05NOV94	04LH	S	.	.0000280	ND	0.0120	mg/kg	V
1994	12NOV94	05LH	S	.	.0000210	ND	0.0052	mg/kg	V
1994	12NOV94	06LH	S	.	.0000086	ND	0.0062	mg/kg	V
1994	11NOV94	11LH	S	.	.0000288	ND	0.0054	mg/kg	

N = 32

------- Site=Lake Holloman MEDIA=Sludges Analyte=Acetone Method=SW8240 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.062	0.062	DET	0.13	mg/kg	J
1992	27FEB92	LH-02	S	.	8.250	ND	11.00	mg/kg	
1992	27FEB92	LH-03	S	.	9.375	ND	14.00	mg/kg	
1992	28FEB92	LH-04	S	0.220	0.220	DET	0.24	mg/kg	J
1992	28FEB92	LH-05	S	.	12.000	ND	16.00	mg/kg	
1992	28FEB92	LH-06	S	.	8.250	ND	11.00	mg/kg	
1992	28FEB92	LH-07	S	.	6.075	ND	8.10	mg/kg	

N = 7

------- Site=Lake Holloman MEDIA=Sludges Analyte=Arsenic Method=SW7060 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	1.3	1.3	DET	0.66	mg/kg	@
1992	27FEB92	LH-02	S	2.7	2.7	DET	1.50	mg/kg	@
1992	27FEB92	LH-03	S	4.6	4.6	DET	3.90	mg/kg	@

------- Site=Lake Holloman MEDIA=Sludges Analyte=Arsenic Method=SW7060 --------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LH-04	S	2.70	2.70000	DET	1.40	mg/kg	@
1992	28FEB92	LH-05	S	5.90	5.90000	DET	4.90	mg/kg	@
1992	28FEB92	LH-06	S	.	0.92727	ND	1.70	mg/kg	
1992	28FEB92	LH-07	S	2.60	2.60000	DET	1.80	mg/kg	@
1994	12NOV94	07LH	S	1.20	1.20000	DET	1.40	mg/kg	J
1994	11NOV94	08LH	S	0.84	0.84000	DET	0.89	mg/kg	J
1994	11NOV94	09LH	S	1.10	1.10000	DET	1.00	mg/kg	
1994	11NOV94	10LH	S	1.40	1.40000	DET	1.20	mg/kg	
1994	12NOV94	12LH	S	1.90	1.90000	DET	1.30	mg/kg	
1994	11NOV94	13LH	S	1.30	1.30000	DET	0.91	mg/kg	
1994	11NOV94	14LH	S	1.00	1.00000	DET	1.40	mg/kg	J
1994	11NOV94	15LH	S	1.60	1.60000	DET	1.10	mg/kg	
1994	11NOV94	16LH	S	1.20	1.20000	DET	1.20	mg/kg	
1994	11NOV94	17LH	S	1.00	1.00000	DET	1.30	mg/kg	J
1994	12NOV94	18LH	S	1.30	1.30000	DET	0.83	mg/kg	
1994	12NOV94	19LH	S	0.90	0.90000	DET	0.81	mg/kg	
1994	12NOV94	20LH	S	0.59	0.59000	DET	0.85	mg/kg	J
1994	12NOV94	21LH	S	1.20	1.20000	DET	1.40	mg/kg	J
1994	12NOV94	22LH	S	1.30	1.30000	DET	2.00	mg/kg	J
1994	12NOV94	23LH	S	1.70	1.70000	DET	2.20	mg/kg	J
1994	12NOV94	24LH	S	3.30	3.30000	DET	4.60	mg/kg	J
1994	12NOV94	25LH	S	1.20	1.20000	DET	1.80	mg/kg	J
1994	03NOV94	01LH	S	1.20	1.20000	DET	0.71	mg/kg	
1994	03NOV94	02LH	S	1.50	1.50000	DET	0.72	mg/kg	
1994	03NOV94	03LH	S	1.10	1.10000	DET	0.87	mg/kg	
1994	05NOV94	04LH	S	2.80	2.80000	DET	1.80	mg/kg	
1994	12NOV94	05LH	S	0.39	0.39000	DET	0.79	mg/kg	J
1994	12NOV94	06LH	S	0.92	0.92000	DET	0.94	mg/kg	J
1994	11NOV94	11LH	S	0.98	0.98000	DET	0.81	mg/kg	

N = 32

-------- Site=Lake Holloman MEDIA=Sludges Analyte=Barium Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	34.0	34.0	DET	3.4	mg/kg	
1992	27FEB92	LH-02	S	20.0	20.0	DET	3.4	mg/kg	
1992	27FEB92	LH-03	S	185.0	185.0	DET	20.0	mg/kg	
1992	28FEB92	LH-04	S	97.0	97.0	DET	3.4	mg/kg	
1992	28FEB92	LH-05	S	180.0	180.0	DET	15.0	mg/kg	
1992	28FEB92	LH-06	S	100.0	100.0	DET	4.0	mg/kg	
1992	28FEB92	LH-07	S	54.0	54.0	DET	4.8	mg/kg	
1994	12NOV94	07LH	S	45.3	45.3	DET	2.7	mg/kg	
1994	11NOV94	08LH	S	48.6	48.6	DET	3.6	mg/kg	

-------- Site=Lake Holloman MEDIA=Sludges Analyte=Barium Method=SW6010 --------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	11NOV94	09LH	S	58.5	58.5	DET	2.0	mg/kg	
1994	11NOV94	10LH	S	50.3	50.3	DET	2.5	mg/kg	
1994	12NOV94	12LH	S	114.0	114.0	DET	2.5	mg/kg	
1994	11NOV94	13LH	S	57.5	57.5	DET	3.6	mg/kg	
1994	11NOV94	14LH	S	34.1	34.1	DET	2.9	mg/kg	
1994	11NOV94	15LH	S	107.0	107.0	DET	2.1	mg/kg	
1994	11NOV94	16LH	S	90.1	90.1	DET	2.3	mg/kg	
1994	11NOV94	17LH	S	29.0	29.0	DET	2.5	mg/kg	
1994	12NOV94	18LH	S	65.7	65.7	DET	1.7	mg/kg	
1994	12NOV94	19LH	S	44.6	44.6	DET	3.2	mg/kg	
1994	12NOV94	20LH	S	31.3	31.3	DET	3.4	mg/kg	
1994	12NOV94	21LH	S	80.9	80.9	DET	2.8	mg/kg	
1994	12NOV94	22LH	S	45.8	45.8	DET	4.1	mg/kg	
1994	12NOV94	23LH	S	110.0	110.0	DET	4.4	mg/kg	
1994	12NOV94	24LH	S	88.4	88.4	DET	9.2	mg/kg	
1994	12NOV94	25LH	S	64.0	64.0	DET	3.6	mg/kg	
1994	03NOV94	01LH	S	34.2	34.2	DET	2.8	mg/kg	
1994	03NOV94	02LH	S	38.2	38.2	DET	2.9	mg/kg	
1994	03NOV94	03LH	S	35.8	35.8	DET	3.5	mg/kg	
1994	05NOV94	04LH	S	348.0	348.0	DET	3.6	mg/kg	
1994	12NOV94	05LH	S	24.1	24.1	DET	3.2	mg/kg	
1994	12NOV94	06LH	S	34.1	34.1	DET	1.9	mg/kg	
1994	11NOV94	11LH	S	46.8	46.8	DET	3.3	mg/kg	

N = 32

------ Site=Lake Holloman MEDIA=Sludges Analyte=Beryllium Method=SW6010 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	07LH	S	.	0.29155	ND	0.54	mg/kg	
1994	11NOV94	08LH	S	.	0.28252	ND	0.71	mg/kg	
1994	11NOV94	09LH	S	0.34	0.34000	DET	0.40	mg/kg	J
1994	11NOV94	10LH	S	.	0.27499	ND	0.49	mg/kg	
1994	12NOV94	12LH	S	0.57	0.57000	DET	0.51	mg/kg	
1994	11NOV94	13LH	S	.	0.02700	ND	0.73	mg/kg	
1994	11NOV94	14LH	S	.	0.30223	ND	0.58	mg/kg	
1994	11NOV94	15LH	S	0.63	0.63000	DET	0.43	mg/kg	
1994	11NOV94	16LH	S	0.55	0.55000	DET	0.47	mg/kg	
1994	11NOV94	17LH	S	.	0.10472	ND	0.51	mg/kg	
1994	12NOV94	18LH	S	0.39	0.39000	DET	0.33	mg/kg	
1994	12NOV94	19LH	S	.	0.22757	ND	0.64	mg/kg	
1994	12NOV94	20LH	S	.	0.28637	ND	0.68	mg/kg	
1994	12NOV94	21LH	S	0.50	0.50000	DET	0.56	mg/kg	J
1994	12NOV94	22LH	S	.	0.10370	ND	0.81	mg/kg	

------ Site=Lake Holloman MEDIA=Sludges Analyte=Beryllium Method=SW6010 -------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	23LH	S	0.93	0.93000	DET	0.88	mg/kg	
1994	12NOV94	24LH	S	.	0.23542	ND	1.80	mg/kg	
1994	12NOV94	25LH	S	0.42	0.42000	DET	0.71	mg/kg	J
1994	03NOV94	01LH	S	.	0.12392	ND	0.57	mg/kg	
1994	03NOV94	02LH	S	.	0.33789	ND	0.58	mg/kg	
1994	03NOV94	03LH	S	.	0.10391	ND	0.70	mg/kg	
1994	05NOV94	04LH	S	3.50	3.50000	DET	0.73	mg/kg	
1994	12NOV94	05LH	S	.	0.29985	ND	0.63	mg/kg	
1994	12NOV94	06LH	S	.	0.03989	ND	0.37	mg/kg	
1994	11NOV94	11LH	S	.	0.24115	ND	0.65	mg/kg	

N = 25

------- Site=Lake Holloman MEDIA=Sludges Analyte=Cadmium Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	07LH	S	.	0.87133	ND	1.40	mg/kg	
1994	11NOV94	08LH	S	.	0.84162	ND	1.80	mg/kg	
1994	11NOV94	09LH	S	.	0.19022	ND	1.00	mg/kg	
1994	11NOV94	10LH	S	.	0.76686	ND	1.20	mg/kg	
1994	12NOV94	12LH	S	.	0.06600	ND	1.30	mg/kg	
1994	11NOV94	13LH	S	.	0.61353	ND	1.80	mg/kg	
1994	11NOV94	14LH	S	.	0.19805	ND	1.40	mg/kg	
1994	11NOV94	15LH	S	.	0.37665	ND	1.10	mg/kg	
1994	11NOV94	16LH	S	.	1.15119	ND	1.20	mg/kg	
1994	11NOV94	17LH	S	.	0.50577	ND	1.30	mg/kg	
1994	12NOV94	18LH	S	.	0.05779	ND	0.83	mg/kg	
1994	12NOV94	19LH	S	.	0.34889	ND	1.60	mg/kg	
1994	12NOV94	20LH	S	.	0.91249	ND	1.70	mg/kg	
1994	12NOV94	21LH	S	.	1.35792	ND	1.40	mg/kg	
1994	12NOV94	22LH	S	.	1.19307	ND	2.00	mg/kg	
1994	12NOV94	23LH	S	.	0.69908	ND	2.20	mg/kg	
1994	12NOV94	24LH	S	.	0.27426	ND	4.60	mg/kg	
1994	12NOV94	25LH	S	.	1.60632	ND	1.80	mg/kg	
1994	03NOV94	01LH	S	.	0.87922	ND	1.40	mg/kg	
1994	03NOV94	02LH	S	.	1.29601	ND	1.40	mg/kg	
1994	03NOV94	03LH	S	.	0.81512	ND	1.70	mg/kg	
1994	05NOV94	04LH	S	1.8	1.80000	DET	1.80	mg/kg	
1994	12NOV94	05LH	S	.	0.40368	ND	1.60	mg/kg	
1994	12NOV94	06LH	S	.	0.31244	ND	0.94	mg/kg	
1994	11NOV94	11LH	S	.	0.39028	ND	1.60	mg/kg	

N = 25

--- Site=Lake Holloman MEDIA=Sludges Analyte=Carbon disulfide Method=SW8240 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.014	0.014	DET	0.0063	mg/kg	@
1992	27FEB92	LH-02	S	0.530	0.530	DET	0.5300	mg/kg	
1992	27FEB92	LH-03	S	0.605	0.605	DET	0.6800	mg/kg	
1992	28FEB92	LH-04	S	0.035	0.035	DET	0.0120	mg/kg	@
1992	28FEB92	LH-05	S	0.800	0.800	DET	0.8000	mg/kg	
1992	28FEB92	LH-06	S	0.560	0.560	DET	0.5600	mg/kg	
1992	28FEB92	LH-07	S	0.400	0.400	DET	0.4000	mg/kg	

N = 7

------ Site=Lake Holloman MEDIA=Sludges Analyte=Chlordane Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	07LH	S	0.0180	0.01800	DET	0.0460	mg/kg	J
1994	11NOV94	08LH	S	.	0.00105	ND	0.0300	mg/kg	
1994	11NOV94	09LH	S	.	0.00068	ND	0.0340	mg/kg	
1994	11NOV94	10LH	S	0.0092	0.00920	DET	0.0420	mg/kg	VJ
1994	12NOV94	12LH	S	0.0039	0.00390	DET	0.0430	mg/kg	J
1994	11NOV94	13LH	S	0.0022	0.00220	DET	0.0310	mg/kg	J
1994	11NOV94	14LH	S	0.0045	0.00450	DET	0.0490	mg/kg	J
1994	11NOV94	15LH	S	0.0058	0.00580	DET	0.0070	mg/kg	J
1994	11NOV94	16LH	S	0.3600	0.36000	DET	0.0770	mg/kg	
1994	11NOV94	17LH	S	0.0036	0.00360	DET	0.0084	mg/kg	J
1994	12NOV94	18LH	S	.	0.00048	ND	0.0055	mg/kg	
1994	12NOV94	19LH	S	.	0.00134	ND	0.0053	mg/kg	
1994	12NOV94	20LH	S	.	0.00126	ND	0.0056	mg/kg	
1994	12NOV94	21LH	S	0.0059	0.00590	DET	0.0092	mg/kg	J
1994	12NOV94	22LH	S	0.0130	0.01300	DET	0.0130	mg/kg	
1994	12NOV94	23LH	S	0.0060	0.00600	DET	0.0150	mg/kg	J
1994	12NOV94	24LH	S	0.0180	0.01800	DET	0.0300	mg/kg	J
1994	12NOV94	25LH	S	0.0220	0.02200	DET	0.0120	mg/kg	
1994	03NOV94	01LH	S	.	0.00123	ND	0.0047	mg/kg	
1994	03NOV94	02LH	S	.	0.00062	ND	0.0048	mg/kg	
1994	03NOV94	03LH	S	.	0.00133	ND	0.0057	mg/kg	
1994	05NOV94	04LH	S	.	0.00096	ND	0.0120	mg/kg	
1994	12NOV94	05LH	S	.	0.00183	ND	0.0270	mg/kg	
1994	12NOV94	06LH	S	.	0.00149	ND	0.0320	mg/kg	
1994	11NOV94	11LH	S	.	0.00072	ND	0.0280	mg/kg	

N = 25

------- Site=Lake Holloman MEDIA=Sludges Analyte=Chromium Method=SW6010 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.	2.5500	ND	3.4	mg/kg	
1992	27FEB92	LH-02	S	.	1.8000	ND	3.4	mg/kg	
1992	27FEB92	LH-03	S	23.0	23.0000	DET	20.0	mg/kg	@
1992	28FEB92	LH-04	S	14.0	14.0000	DET	3.4	mg/kg	@
1992	28FEB92	LH-05	S	19.0	19.0000	DET	15.0	mg/kg	@
1992	28FEB92	LH-06	S	9.0	9.0000	DET	4.0	mg/kg	@
1992	28FEB92	LH-07	S	5.0	5.0000	DET	4.8	mg/kg	@
1994	12NOV94	07LH	S	3.5	3.5000	DET	2.7	mg/kg	
1994	11NOV94	08LH	S	1.5	1.5000	DET	3.6	mg/kg	J
1994	11NOV94	09LH	S	5.7	5.7000	DET	2.0	mg/kg	
1994	11NOV94	10LH	S	3.0	3.0000	DET	2.5	mg/kg	
1994	12NOV94	12LH	S	12.0	12.0000	DET	2.5	mg/kg	
1994	11NOV94	13LH	S	1.5	1.5000	DET	3.6	mg/kg	J
1994	11NOV94	14LH	S	1.3	1.3000	DET	2.9	mg/kg	J
1994	11NOV94	15LH	S	8.6	8.6000	DET	2.1	mg/kg	
1994	11NOV94	16LH	S	11.7	11.7000	DET	2.3	mg/kg	
1994	11NOV94	17LH	S	1.6	1.6000	DET	2.5	mg/kg	J
1994	12NOV94	18LH	S	5.1	5.1000	DET	1.7	mg/kg	
1994	12NOV94	19LH	S	.	0.5101	ND	3.2	mg/kg	
1994	12NOV94	20LH	S	.	1.0039	ND	3.4	mg/kg	
1994	12NOV94	21LH	S	7.2	7.2000	DET	2.8	mg/kg	
1994	12NOV94	22LH	S	2.6	2.6000	DET	4.1	mg/kg	J
1994	12NOV94	23LH	S	13.8	13.8000	DET	4.4	mg/kg	
1994	12NOV94	24LH	S	6.5	6.5000	DET	9.2	mg/kg	J
1994	12NOV94	25LH	S	5.6	5.6000	DET	3.6	mg/kg	
1994	03NOV94	01LH	S	2.1	2.1000	DET	2.8	mg/kg	J
1994	03NOV94	02LH	S	.	0.7203	ND	2.9	mg/kg	
1994	03NOV94	03LH	S	.	0.6198	ND	3.5	mg/kg	
1994	05NOV94	04LH	S	40.7	40.7000	DET	3.6	mg/kg	
1994	12NOV94	05LH	S	.	1.0910	ND	3.2	mg/kg	
1994	12NOV94	06LH	S	2.0	2.0000	DET	1.9	mg/kg	
1994	11NOV94	11LH	S	1.8	1.8000	DET	3.3	mg/kg	J

N = 32

-------- Site=Lake Holloman MEDIA=Sludges Analyte=Cobalt Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	3.4	3.4	DET	3.4	mg/kg	
1992	27FEB92	LH-02	S	3.4	3.4	DET	3.4	mg/kg	
1992	27FEB92	LH-03	S	17.5	17.5	DET	20.0	mg/kg	
1992	28FEB92	LH-04	S	4.9	4.9	DET	3.4	mg/kg	@
1992	28FEB92	LH-05	S	15.0	15.0	DET	15.0	mg/kg	
1992	28FEB92	LH-06	S	4.3	4.3	DET	4.0	mg/kg	@
1992	28FEB92	LH-07	S	4.8	4.8	DET	4.8	mg/kg	

-------- Site=Lake Holloman MEDIA=Sludges Analyte=Cobalt Method=SW6010 --------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	07LH	S	1.50	1.5000	DET	2.7	mg/kg	J
1994	11NOV94	08LH	S	.	0.5283	ND	3.6	mg/kg	
1994	11NOV94	09LH	S	1.70	1.7000	DET	2.0	mg/kg	J
1994	11NOV94	10LH	S	.	0.5023	ND	2.5	mg/kg	
1994	12NOV94	12LH	S	4.00	4.0000	DET	2.5	mg/kg	
1994	11NOV94	13LH	S	.	0.2317	ND	3.6	mg/kg	
1994	11NOV94	14LH	S	1.10	1.1000	DET	2.9	mg/kg	J
1994	11NOV94	15LH	S	3.60	3.6000	DET	2.1	mg/kg	
1994	11NOV94	16LH	S	4.40	4.4000	DET	2.3	mg/kg	
1994	11NOV94	17LH	S	0.78	0.7800	DET	2.5	mg/kg	J
1994	12NOV94	18LH	S	2.10	2.1000	DET	1.7	mg/kg	
1994	12NOV94	19LH	S	.	0.0715	ND	3.2	mg/kg	
1994	12NOV94	20LH	S	.	0.5581	ND	3.4	mg/kg	
1994	12NOV94	21LH	S	3.40	3.4000	DET	2.8	mg/kg	
1994	12NOV94	22LH	S	1.30	1.3000	DET	4.1	mg/kg	J
1994	12NOV94	23LH	S	5.90	5.9000	DET	4.4	mg/kg	
1994	12NOV94	24LH	S	3.00	3.0000	DET	9.2	mg/kg	J
1994	12NOV94	25LH	S	2.90	2.9000	DET	3.6	mg/kg	J
1994	03NOV94	01LH	S	0.95	0.9500	DET	2.8	mg/kg	J
1994	03NOV94	02LH	S	.	0.3491	ND	2.9	mg/kg	
1994	03NOV94	03LH	S	1.60	1.6000	DET	3.5	mg/kg	J
1994	05NOV94	04LH	S	54.00	54.0000	DET	3.6	mg/kg	
1994	12NOV94	05LH	S	.	0.0588	ND	3.2	mg/kg	
1994	12NOV94	06LH	S	0.60	0.6000	DET	1.9	mg/kg	J
1994	11NOV94	11LH	S	.	0.0716	ND	3.3	mg/kg	

N = 32

-------- Site=Lake Holloman MEDIA=Sludges Analyte=Copper Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.	5.1000	ND	6.8	mg/kg	
1992	27FEB92	LH-02	S	.	5.1750	ND	6.9	mg/kg	
1992	27FEB92	LH-03	S	.	32.6667	ND	40.0	mg/kg	
1992	28FEB92	LH-04	S	15.0	15.0000	DET	6.8	mg/kg	@
1992	28FEB92	LH-05	S	.	16.0714	ND	30.0	mg/kg	
1992	28FEB92	LH-06	S	12.0	12.0000	DET	8.0	mg/kg	@
1992	28FEB92	LH-07	S	10.0	10.0000	DET	9.5	mg/kg	@
1994	12NOV94	07LH	S	6.7	6.7000	DET	5.4	mg/kg	
1994	11NOV94	08LH	S	3.2	3.2000	DET	7.1	mg/kg	J
1994	11NOV94	09LH	S	7.6	7.6000	DET	4.0	mg/kg	
1994	11NOV94	10LH	S	5.9	5.9000	DET	4.9	mg/kg	
1994	12NOV94	12LH	S	12.3	12.3000	DET	5.1	mg/kg	
1994	11NOV94	13LH	S	4.2	4.2000	DET	7.3	mg/kg	J

-------- Site=Lake Holloman MEDIA=Sludges Analyte=Copper Method=SW6010 --------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	11NOV94	14LH	S	6.2	6.2000	DET	5.8	mg/kg	
1994	11NOV94	15LH	S	11.2	11.2000	DET	4.3	mg/kg	
1994	11NOV94	16LH	S	15.9	15.9000	DET	4.7	mg/kg	
1994	11NOV94	17LH	S	5.5	5.5000	DET	5.1	mg/kg	
1994	12NOV94	18LH	S	5.6	5.6000	DET	3.3	mg/kg	
1994	12NOV94	19LH	S	.	1.2090	ND	6.4	mg/kg	
1994	12NOV94	20LH	S	3.1	3.1000	DET	6.8	mg/kg	J
1994	12NOV94	21LH	S	11.4	11.4000	DET	5.6	mg/kg	
1994	12NOV94	22LH	S	8.4	8.4000	DET	8.1	mg/kg	
1994	12NOV94	23LH	S	21.4	21.4000	DET	8.8	mg/kg	
1994	12NOV94	24LH	S	27.0	27.0000	DET	18.3	mg/kg	
1994	12NOV94	25LH	S	13.7	13.7000	DET	7.1	mg/kg	
1994	03NOV94	01LH	S	3.2	3.2000	DET	5.7	mg/kg	J
1994	03NOV94	02LH	S	1.7	1.7000	DET	5.8	mg/kg	J
1994	03NOV94	03LH	S	5.3	5.3000	DET	7.0	mg/kg	J
1994	05NOV94	04LH	S	18.0	18.0000	DET	7.3	mg/kg	
1994	12NOV94	05LH	S	1.6	1.6000	DET	6.3	mg/kg	J
1994	12NOV94	06LH	S	4.1	4.1000	DET	3.7	mg/kg	
1994	11NOV94	11LH	S	2.9	2.9000	DET	6.5	mg/kg	J

N = 32

------- Site=Lake Holloman MEDIA=Sludges Analyte=Cyanide Method=SW9012 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	1.40	1.40	DET	0.23	mg/kg	
1992	27FEB92	LH-02	S	120.00	120.00	DET	4.70	mg/kg	
1992	27FEB92	LH-03	S	2.65	2.65	DET	1.20	mg/kg	@
1992	28FEB92	LH-04	S	0.51	0.51	DET	0.50	mg/kg	@
1992	28FEB92	LH-05	S	1.50	1.50	DET	1.50	mg/kg	
1992	28FEB92	LH-06	S	1.70	1.70	DET	1.10	mg/kg	@
1992	28FEB92	LH-07	S	1.90	1.90	DET	1.20	mg/kg	@

N = 7

------- Site=Lake Holloman MEDIA=Sludges Analyte=Dieldrin Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.01900	0.01900	DET	.0013	mg/kg	X
1992	27FEB92	LH-02	S	0.11000	0.11000	DET	.0053	mg/kg	X
1992	27FEB92	LH-03	S	0.05765	0.05765	DET	.0067	mg/kg	X

------- Site=Lake Holloman MEDIA=Sludges Analyte=Dieldrin Method=SW8080 -------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LH-04	S	0.00240	0.002400	DET	0.0023	mg/kg	X@
1992	28FEB92	LH-05	S	0.00800	0.008000	DET	0.0080	mg/kg	
1992	28FEB92	LH-06	S	0.05200	0.052000	DET	0.0055	mg/kg	X
1992	28FEB92	LH-07	S	0.03300	0.033000	DET	0.0060	mg/kg	C
1994	12NOV94	07LH	S	.	0.000211	ND	0.0089	mg/kg	
1994	11NOV94	08LH	S	.	0.000051	ND	0.0059	mg/kg	
1994	11NOV94	09LH	S	0.00024	0.000240	DET	0.0066	mg/kg	J
1994	11NOV94	10LH	S	0.00082	0.000820	DET	0.0081	mg/kg	J
1994	12NOV94	12LH	S	.	0.000014	ND	0.0084	mg/kg	
1994	11NOV94	13LH	S	.	0.000198	ND	0.0060	mg/kg	
1994	11NOV94	14LH	S	0.00061	0.000610	DET	0.0095	mg/kg	J
1994	11NOV94	15LH	S	0.00045	0.000450	DET	0.0070	mg/kg	J
1994	11NOV94	16LH	S	0.00057	0.000570	DET	0.0770	mg/kg	J
1994	11NOV94	17LH	S	.	0.000234	ND	0.0084	mg/kg	
1994	12NOV94	18LH	S	.	0.000070	ND	0.0055	mg/kg	
1994	12NOV94	19LH	S	.	0.000184	ND	0.0053	mg/kg	
1994	12NOV94	20LH	S	.	0.000062	ND	0.0056	mg/kg	
1994	12NOV94	21LH	S	0.00110	0.001100	DET	0.0092	mg/kg	J
1994	12NOV94	22LH	S	0.00140	0.001400	DET	0.0130	mg/kg	J
1994	12NOV94	23LH	S	0.00110	0.001100	DET	0.0150	mg/kg	J
1994	12NOV94	24LH	S	.	0.000116	ND	0.0300	mg/kg	
1994	12NOV94	25LH	S	0.00350	0.003500	DET	0.0120	mg/kg	J
1994	03NOV94	01LH	S	.	0.000199	ND	0.0047	mg/kg	
1994	03NOV94	02LH	S	.	0.000091	ND	0.0048	mg/kg	
1994	03NOV94	03LH	S	.	0.000031	ND	0.0057	mg/kg	
1994	05NOV94	04LH	S	.	0.000203	ND	0.0120	mg/kg	
1994	12NOV94	05LH	S	.	0.000231	ND	0.0052	mg/kg	
1994	12NOV94	06LH	S	.	0.000170	ND	0.0062	mg/kg	
1994	11NOV94	11LH	S	.	0.000191	ND	0.0054	mg/kg	

N = 32

------ Site=Lake Holloman MEDIA=Sludges Analyte=Heptachlor Method=SW8080 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.0013	.0013	DET	.0013	mg/kg	
1992	27FEB92	LH-02	S	.0053	.0053	DET	.0053	mg/kg	
1992	27FEB92	LH-03	S	.0060	.0060	DET	.0067	mg/kg	
1992	28FEB92	LH-04	S	.0012	.0012	DET	.0023	mg/kg	JX
1992	28FEB92	LH-05	S	.0080	.0080	DET	.0080	mg/kg	
1992	28FEB92	LH-06	S	.0055	.0055	DET	.0055	mg/kg	
1992	28FEB92	LH-07	S	.0060	.0060	DET	.0060	mg/kg	

N = 7

------- Site=Lake Holloman MEDIA=Sludges Analyte=Isodrin Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.0013	0.0013	DET	.0013	mg/kg	
1992	27FEB92	LH-02	S	0.0053	0.0053	DET	.0053	mg/kg	
1992	27FEB92	LH-03	S	0.0060	0.0060	DET	.0067	mg/kg	
1992	28FEB92	LH-04	S	0.0023	0.0023	DET	.0023	mg/kg	
1992	28FEB92	LH-05	S	0.0080	0.0080	DET	.0080	mg/kg	
1992	28FEB92	LH-06	S	9.9000	9.9000	DET	.0055	mg/kg	X
1992	28FEB92	LH-07	S	0.0130	0.0130	DET	.0060	mg/kg	X@

N = 7

------- Site=Lake Holloman MEDIA=Sludges Analyte=Kepone Method=MRI-SOP --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	07LH	S	.	0.002454	ND	0.07	mg/kg	
1994	11NOV94	08LH	S	.	0.008356	ND	0.07	mg/kg	
1994	11NOV94	10LH	S	.	0.013549	ND	0.07	mg/kg	
1994	12NOV94	12LH	S	.	0.006966	ND	0.07	mg/kg	
1994	11NOV94	14LH	S	.	0.011343	ND	0.07	mg/kg	
1994	11NOV94	16LH	S	.	0.008121	ND	0.07	mg/kg	
1994	11NOV94	17LH	S	.	0.003921	ND	0.07	mg/kg	
1994	12NOV94	20LH	S	.	0.000659	ND	0.07	mg/kg	
1994	12NOV94	22LH	S	.	0.014390	ND	0.07	mg/kg	
1994	12NOV94	23LH	S	.	0.002238	ND	0.07	mg/kg	
1994	12NOV94	25LH	S	.	0.015783	ND	0.07	mg/kg	
1994	03NOV94	01LH	S	0.017	0.017000	DET	0.07	mg/kg	J
1994	03NOV94	03LH	S	.	0.015399	ND	0.07	mg/kg	
1994	05NOV94	04LH	S	.	0.008631	ND	0.07	mg/kg	
1994	12NOV94	05LH	S	.	0.002416	ND	0.07	mg/kg	

N = 15

--------- Site=Lake Holloman MEDIA=Sludges Analyte=Lead Method=SW7421 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	2.30	2.3000	DET	0.25	mg/kg	
1992	27FEB92	LH-02	S	9.60	9.6000	DET	1.20	mg/kg	
1992	27FEB92	LH-03	S	9.75	9.7500	DET	1.50	mg/kg	
1992	28FEB92	LH-04	S	37.00	37.0000	DET	2.10	mg/kg	
1992	28FEB92	LH-05	S	18.00	18.0000	DET	1.90	mg/kg	
1992	28FEB92	LH-06	S	2.80	2.8000	DET	1.30	mg/kg	@
1992	28FEB92	LH-07	S	12.00	12.0000	DET	1.40	mg/kg	
1994	12NOV94	07LH	S	.	0.2361	ND	1.40	mg/kg	

--------- Site=Lake Holloman MEDIA=Sludges Analyte=Lead Method=SW7421 ---------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	11NOV94	08LH	S	.	0.2432	ND	1.8	mg/kg	
1994	11NOV94	09LH	S	3.50	3.5000	DET	5.0	mg/kg	J
1994	11NOV94	10LH	S	0.25	0.2500	DET	2.5	mg/kg	J
1994	12NOV94	12LH	S	6.10	6.1000	DET	12.7	mg/kg	J
1994	11NOV94	13LH	S	2.50	2.5000	DET	4.5	mg/kg	J
1994	11NOV94	14LH	S	1.10	1.1000	DET	1.4	mg/kg	J
1994	11NOV94	15LH	S	7.20	7.2000	DET	5.3	mg/kg	
1994	11NOV94	16LH	S	18.90	18.9000	DET	2.3	mg/kg	
1994	11NOV94	17LH	S	2.10	2.1000	DET	2.5	mg/kg	J
1994	12NOV94	18LH	S	3.20	3.2000	DET	4.1	mg/kg	J
1994	12NOV94	19LH	S	1.20	1.2000	DET	3.2	mg/kg	J
1994	12NOV94	20LH	S	1.50	1.5000	DET	3.4	mg/kg	J
1994	12NOV94	21LH	S	5.40	5.4000	DET	7.0	mg/kg	J
1994	12NOV94	22LH	S	6.30	6.3000	DET	20.3	mg/kg	J
1994	12NOV94	23LH	S	10.40	10.4000	DET	22.1	mg/kg	J
1994	12NOV94	24LH	S	13.90	13.9000	DET	9.2	mg/kg	
1994	12NOV94	25LH	S	7.70	7.7000	DET	8.9	mg/kg	J
1994	03NOV94	01LH	S	0.62	0.6200	DET	2.8	mg/kg	J
1994	03NOV94	02LH	S	2.40	2.4000	DET	7.2	mg/kg	J
1994	03NOV94	03LH	S	1.30	1.3000	DET	3.5	mg/kg	J
1994	05NOV94	04LH	S	4.70	4.7000	DET	18.2	mg/kg	J
1994	12NOV94	05LH	S	1.30	1.3000	DET	3.2	mg/kg	J
1994	12NOV94	06LH	S	2.90	2.9000	DET	4.7	mg/kg	J
1994	11NOV94	11LH	S	2.30	2.3000	DET	4.1	mg/kg	J

N = 32

- Site=Lake Holloman MEDIA=Sludges Analyte=Methyl ethyl ketone Method=SW8240 --

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.130	0.130	DET	0.13	mg/kg	
1992	27FEB92	LH-02	S	11.000	11.000	DET	11.00	mg/kg	
1992	27FEB92	LH-03	S	12.500	12.500	DET	14.00	mg/kg	
1992	28FEB92	LH-04	S	0.034	0.034	DET	0.24	mg/kg	J
1992	28FEB92	LH-05	S	16.000	16.000	DET	16.00	mg/kg	
1992	28FEB92	LH-06	S	11.000	11.000	DET	11.00	mg/kg	
1992	28FEB92	LH-07	S	8.100	8.100	DET	8.10	mg/kg	

N = 7

-- Site=Lake Holloman MEDIA=Sludges Analyte=Methylene chloride Method=SW8240 --

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.	0.00473	ND	0.0063	mg/kg	
1992	27FEB92	LH-02	S	.	0.39750	ND	0.5300	mg/kg	
1992	27FEB92	LH-03	S	.	0.45375	ND	0.6800	mg/kg	
1992	28FEB92	LH-04	S	.0034	0.00340	DET	0.0120	mg/kg	J
1992	28FEB92	LH-05	S	.	0.60000	ND	0.8000	mg/kg	
1992	28FEB92	LH-06	S	.	0.42000	ND	0.5600	mg/kg	
1992	28FEB92	LH-07	S	.	0.30000	ND	0.4000	mg/kg	

N = 7

-------- Site=Lake Holloman MEDIA=Sludges Analyte=Nickel Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.	5.1000	ND	6.8	mg/kg	
1992	27FEB92	LH-02	S	.	5.1750	ND	6.9	mg/kg	
1992	27FEB92	LH-03	S	.	26.2500	ND	40.0	mg/kg	
1992	28FEB92	LH-04	S	11.0	11.0000	DET	6.8	mg/kg	@
1992	28FEB92	LH-05	S	.	22.5000	ND	30.0	mg/kg	
1992	28FEB92	LH-06	S	9.1	9.1000	DET	8.0	mg/kg	@
1992	28FEB92	LH-07	S	.	7.1250	ND	9.5	mg/kg	
1994	12NOV94	07LH	S	3.7	3.7000	DET	10.8	mg/kg	J
1994	11NOV94	08LH	S	.	1.7603	ND	14.2	mg/kg	
1994	11NOV94	09LH	S	4.9	4.9000	DET	8.0	mg/kg	J
1994	11NOV94	10LH	S	2.2	2.2000	DET	9.8	mg/kg	J
1994	12NOV94	12LH	S	9.5	9.5000	DET	10.2	mg/kg	J
1994	11NOV94	13LH	S	2.4	2.4000	DET	14.5	mg/kg	J
1994	11NOV94	14LH	S	2.3	2.3000	DET	11.5	mg/kg	J
1994	11NOV94	15LH	S	9.5	9.5000	DET	8.5	mg/kg	
1994	11NOV94	16LH	S	9.2	9.2000	DET	9.3	mg/kg	J
1994	11NOV94	17LH	S	2.0	2.0000	DET	10.1	mg/kg	J
1994	12NOV94	18LH	S	4.6	4.6000	DET	6.6	mg/kg	J
1994	12NOV94	19LH	S	3.9	3.9000	DET	12.9	mg/kg	J
1994	12NOV94	20LH	S	.	1.0285	ND	13.6	mg/kg	
1994	12NOV94	21LH	S	7.6	7.6000	DET	11.2	mg/kg	J
1994	12NOV94	22LH	S	3.2	3.2000	DET	16.2	mg/kg	J
1994	12NOV94	23LH	S	13.2	13.2000	DET	17.7	mg/kg	J
1994	12NOV94	24LH	S	.	0.8146	ND	36.7	mg/kg	
1994	12NOV94	25LH	S	6.5	6.5000	DET	14.2	mg/kg	J
1994	03NOV94	01LH	S	.	0.2737	ND	11.3	mg/kg	
1994	03NOV94	02LH	S	.	0.3952	ND	11.5	mg/kg	
1994	03NOV94	03LH	S	.	0.1699	ND	13.9	mg/kg	
1994	05NOV94	04LH	S	38.5	38.5000	DET	14.6	mg/kg	
1994	12NOV94	05LH	S	2.3	2.3000	DET	12.6	mg/kg	J
1994	12NOV94	06LH	S	1.8	1.8000	DET	7.5	mg/kg	J
1994	11NOV94	11LH	S	2.4	2.4000	DET	13.0	mg/kg	J

N = 32

------- Site=Lake Holloman MEDIA=Sludges Analyte=Selenium Method=SW7740 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.	0.30750	ND	0.41	mg/kg	
1992	27FEB92	LH-02	S	.	1.42500	ND	1.90	mg/kg	
1992	27FEB92	LH-03	S	.	1.81667	ND	2.50	mg/kg	
1992	28FEB92	LH-04	S	.	0.66000	ND	0.88	mg/kg	
1992	28FEB92	LH-05	S	.	2.32500	ND	3.10	mg/kg	
1992	28FEB92	LH-06	S	.	1.57500	ND	2.10	mg/kg	
1992	28FEB92	LH-07	S	.	1.72500	ND	2.30	mg/kg	
1994	12NOV94	07LH	S	.	0.06874	ND	2.70	mg/kg	
1994	11NOV94	08LH	S	.	0.04796	ND	1.80	mg/kg	
1994	11NOV94	09LH	S	.	0.04098	ND	4.00	mg/kg	
1994	11NOV94	10LH	S	.	0.03466	ND	2.50	mg/kg	
1994	12NOV94	12LH	S	0.51	0.51000	DET	2.50	mg/kg	J
1994	11NOV94	13LH	S	.	0.01819	ND	1.80	mg/kg	
1994	11NOV94	14LH	S	.	0.08225	ND	2.90	mg/kg	
1994	11NOV94	15LH	S	0.51	0.51000	DET	2.10	mg/kg	J
1994	11NOV94	16LH	S	.	0.04363	ND	1.20	mg/kg	
1994	11NOV94	17LH	S	.	0.12381	ND	2.50	mg/kg	
1994	12NOV94	18LH	S	.	0.06343	ND	1.70	mg/kg	
1994	12NOV94	19LH	S	.	0.01735	ND	3.20	mg/kg	
1994	12NOV94	20LH	S	.	0.09167	ND	3.40	mg/kg	
1994	12NOV94	21LH	S	.	0.13928	NO	2.80	mg/kg	
1994	12NOV94	22LH	S	0.41	0.41000	DET	4.10	mg/kg	J
1994	12NOV94	23LH	S	.	0.10771	ND	2.20	mg/kg	
1994	12NOV94	24LH	S	1.70	1.70000	DET	4.60	mg/kg	J
1994	12NOV94	25LH	S	0.68	0.68000	DET	1.80	mg/kg	J
1994	03NOV94	01LH	S	0.16	0.16000	DET	0.71	mg/kg	J
1994	03NOV94	02LH	S	0.14	0.14000	DET	1.40	mg/kg	J
1994	03NOV94	03LH	S	0.44	0.44000	DET	1.70	mg/kg	J
1994	05NOV94	04LH	S	1.50	1.50000	DET	1.80	mg/kg	J
1994	12NOV94	05LH	S	.	0.00548	ND	3.20	mg/kg	
1994	12NOV94	06LH	S	.	0.11322	ND	1.90	mg/kg	
1994	11NOV94	11LH	S	.	0.07031	ND	3.30	mg/kg	

N = 32

-------- Site=Lake Holloman MEDIA=Sludges Analyte=Silver Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	07LH	S	1.2	1.20000	DET	2.7	mg/kg	J
1994	11NOV94	08LH	S	.	0.09345	ND	3.6	mg/kg	
1994	11NOV94	09LH	S	1.1	1.10000	DET	2.0	mg/kg	J
1994	11NOV94	10LH	S	1.0	1.00000	DET	2.5	mg/kg	J
1994	12NOV94	12LH	S	1.0	1.00000	DET	2.5	mg/kg	J
1994	11NOV94	13LH	S	.	0.22517	ND	3.6	mg/kg	
1994	11NOV94	14LH	S	.	0.51027	ND	2.9	mg/kg	

-------- Site=Lake Holloman MEDIA=Sludges Analyte=Silver Method=SW6010 --------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	11NOV94	15LH	S	0.99	0.99000	DET	2.1	mg/kg	J
1994	11NOV94	16LH	S	2.80	2.80000	DET	2.3	mg/kg	
1994	11NOV94	17LH	S	1.30	1.30000	DET	2.5	mg/kg	J
1994	12NOV94	18LH	S	.	0.54569	ND	1.7	mg/kg	
1994	12NOV94	19LH	S	.	0.58593	ND	3.2	mg/kg	
1994	12NOV94	20LH	S	.	0.52310	ND	3.4	mg/kg	
1994	12NOV94	21LH	S	1.50	1.50000	DET	2.8	mg/kg	J
1994	12NOV94	22LH	S	.	0.66927	ND	4.1	mg/kg	
1994	12NOV94	23LH	S	3.80	3.80000	DET	4.4	mg/kg	J
1994	12NOV94	24LH	S	.	0.71686	ND	9.2	mg/kg	
1994	12NOV94	25LH	S	4.70	4.70000	DET	3.6	mg/kg	
1994	03NOV94	01LH	S	.	0.46191	ND	2.8	mg/kg	
1994	03NOV94	02LH	S	.	0.59043	ND	2.9	mg/kg	
1994	03NOV94	03LH	S	.	0.92992	ND	3.5	mg/kg	
1994	05NOV94	04LH	S	.	0.43646	ND	3.6	mg/kg	
1994	12NOV94	05LH	S	.	0.38491	ND	3.2	mg/kg	
1994	12NOV94	06LH	S	.	0.78414	ND	1.9	mg/kg	
1994	11NOV94	11LH	S	.	0.19308	ND	3.3	mg/kg	

N = 25

------- Site=Lake Holloman MEDIA=Sludges Analyte=Sulfide Method=SW9030 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	290	290	DET	31	mg/kg	
1992	27FEB92	LH-02	S	1200	1200	DET	130	mg/kg	
1992	27FEB92	LH-03	S	1035	1035	DET	170	mg/kg	
1992	28FEB92	LH-04	S	430	430	DET	56	mg/kg	
1992	28FEB92	LH-05	S	2700	2700	DET	190	mg/kg	
1992	28FEB92	LH-06	S	830	830	DET	140	mg/kg	
1992	28FEB92	LH-07	S	1200	1200	DET	140	mg/kg	

N = 7

------- Site=Lake Holloman MEDIA=Sludges Analyte=Thallium Method=SW6010 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	07LH	S	.	0.69580	ND	2.7	mg/kg	
1994	11NOV94	08LH	S	.	0.96894	ND	3.6	mg/kg	
1994	11NOV94	09LH	S	.	0.07323	ND	2.0	mg/kg	
1994	11NOV94	10LH	S	.	0.07845	ND	2.5	mg/kg	

------- Site=Lake Holloman MEDIA=Sludges Analyte=Thallium Method=SW6010 -------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	12LH	S	.	0.66096	ND	2.5	mg/kg	
1994	11NOV94	13LH	S	1.1	1.10000	DET	3.6	mg/kg	J
1994	11NOV94	14LH	S	.	0.11506	ND	2.9	mg/kg	
1994	11NOV94	15LH	S	1.2	1.20000	DET	2.1	mg/kg	J
1994	11NOV94	16LH	S	.	0.17967	ND	2.3	mg/kg	
1994	11NOV94	17LH	S	.	0.71018	ND	2.5	mg/kg	
1994	12NOV94	18LH	S	.	0.66408	ND	1.7	mg/kg	
1994	12NOV94	19LH	S	2.3	2.30000	DET	3.2	mg/kg	J
1994	12NOV94	20LH	S	.	0.29862	ND	3.4	mg/kg	
1994	12NOV94	21LH	S	.	1.03593	ND	2.8	mg/kg	
1994	12NOV94	22LH	S	.	0.37257	ND	4.1	mg/kg	
1994	12NOV94	23LH	S	.	0.99822	ND	4.4	mg/kg	
1994	12NOV94	24LH	S	.	0.59701	ND	9.2	mg/kg	
1994	12NOV94	25LH	S	.	0.22266	ND	3.6	mg/kg	
1994	03NOV94	01LH	S	.	0.82480	ND	1.4	mg/kg	
1994	03NOV94	02LH	S	.	1.02727	ND	1.4	mg/kg	
1994	03NOV94	03LH	S	.	0.02298	ND	1.7	mg/kg	
1994	05NOV94	04LH	S	3.5	3.50000	DET	3.6	mg/kg	J
1994	12NOV94	05LH	S	2.0	2.00000	DET	3.2	mg/kg	J
1994	12NOV94	06LH	S	.	0.26161	ND	1.9	mg/kg	
1994	11NOV94	11LH	S	.	0.45512	ND	3.3	mg/kg	

N = 25

------- Site=Lake Holloman MEDIA=Sludges Analyte=Vanadium Method=SW6010 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	6.8	6.8	DET	6.8	mg/kg	@
1992	27FEB92	LH-02	S	6.9	6.9	DET	6.9	mg/kg	
1992	27FEB92	LH-03	S	43.5	43.5	DET	40.0	mg/kg	
1992	28FEB92	LH-04	S	23.0	23.0	DET	6.8	mg/kg	@
1992	28FEB92	LH-05	S	33.0	33.0	DET	30.0	mg/kg	@
1992	28FEB92	LH-06	S	19.0	19.0	DET	8.0	mg/kg	@
1992	28FEB92	LH-07	S	13.0	13.0	DET	9.5	mg/kg	@
1994	12NOV94	07LH	S	10.5	10.5	DET	2.7	mg/kg	
1994	11NOV94	08LH	S	6.3	6.3	DET	3.6	mg/kg	
1994	11NOV94	09LH	S	12.2	12.2	DET	2.0	mg/kg	
1994	11NOV94	10LH	S	10.2	10.2	DET	2.5	mg/kg	
1994	12NOV94	12LH	S	23.2	23.2	DET	2.5	mg/kg	
1994	11NOV94	13LH	S	9.2	9.2	DET	3.6	mg/kg	
1994	11NOV94	14LH	S	8.5	8.5	DET	2.9	mg/kg	
1994	11NOV94	15LH	S	20.6	20.6	DET	2.1	mg/kg	
1994	11NOV94	16LH	S	22.9	22.9	DET	2.3	mg/kg	
1994	11NOV94	17LH	S	7.6	7.6	DET	2.5	mg/kg	

------- Site=Lake Holloman MEDIA=Sludges Analyte=Vanadium Method=SW6010 -------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	18LH	S	13.1	13.1	DET	1.7	mg/kg	
1994	12NOV94	19LH	S	10.5	10.5	DET	3.2	mg/kg	
1994	12NOV94	20LH	S	5.6	5.6	DET	3.4	mg/kg	
1994	12NOV94	21LH	S	17.2	17.2	DET	2.8	mg/kg	
1994	12NOV94	22LH	S	11.0	11.0	DET	4.1	mg/kg	
1994	12NOV94	23LH	S	25.9	25.9	DET	4.4	mg/kg	
1994	12NOV94	24LH	S	24.6	24.6	DET	9.2	mg/kg	
1994	12NOV94	25LH	S	16.4	16.4	DET	3.6	mg/kg	
1994	03NOV94	01LH	S	7.4	7.4	DET	2.8	mg/kg	
1994	03NOV94	02LH	S	4.7	4.7	DET	2.9	mg/kg	
1994	03NOV94	03LH	S	7.3	7.3	DET	3.5	mg/kg	
1994	05NOV94	04LH	S	135.0	135.0	DET	3.6	mg/kg	
1994	12NOV94	05LH	S	5.6	5.6	DET	3.2	mg/kg	
1994	12NOV94	06LH	S	6.5	6.5	DET	1.9	mg/kg	
1994	11NOV94	11LH	S	8.4	8.4	DET	3.3	mg/kg	

N = 32

--------- Site=Lake Holloman MEDIA=Sludges Analyte=Zinc Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	12.0	12.0	DET	6.8	mg/kg	@
1992	27FEB92	LH-02	S	7.9	7.9	DET	6.9	mg/kg	@
1992	27FEB92	LH-03	S	68.0	68.0	DET	40.0	mg/kg	@
1992	28FEB92	LH-04	S	55.0	55.0	DET	6.8	mg/kg	
1992	28FEB92	LH-05	S	68.0	68.0	DET	30.0	mg/kg	@
1992	28FEB92	LH-06	S	31.0	31.0	DET	8.0	mg/kg	@
1992	28FEB92	LH-07	S	18.0	18.0	DET	9.5	mg/kg	@
1994	12NOV94	07LH	S	14.5	14.5	DET	5.4	mg/kg	
1994	11NOV94	08LH	S	11.8	11.8	DET	7.1	mg/kg	
1994	11NOV94	09LH	S	23.1	23.1	DET	4.0	mg/kg	
1994	11NOV94	10LH	S	14.0	14.0	DET	4.9	mg/kg	
1994	12NOV94	12LH	S	40.3	40.3	DET	5.1	mg/kg	
1994	11NOV94	13LH	S	12.2	12.2	DET	7.3	mg/kg	
1994	11NOV94	14LH	S	13.2	13.2	DET	5.8	mg/kg	
1994	11NOV94	15LH	S	32.2	32.2	DET	4.3	mg/kg	
1994	11NOV94	16LH	S	46.3	46.3	DET	4.7	mg/kg	
1994	11NOV94	17LH	S	10.1	10.1	DET	5.1	mg/kg	
1994	12NOV94	18LH	S	17.4	17.4	DET	3.3	mg/kg	
1994	12NOV94	19LH	S	10.8	10.8	DET	6.4	mg/kg	
1994	12NOV94	20LH	S	6.8	6.8	DET	6.8	mg/kg	
1994	12NOV94	21LH	S	28.1	28.1	DET	5.6	mg/kg	
1994	12NOV94	22LH	S	19.3	19.3	DET	8.1	mg/kg	
1994	12NOV94	23LH	S	49.8	49.8	DET	8.8	mg/kg	

--------- Site=Lake Holloman MEDIA=Sludges Analyte=Zinc Method=SW6010 ---------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	24LH	S	38.3	38.3	DET	18.3	mg/kg	
1994	12NOV94	25LH	S	31.8	31.8	DET	7.1	mg/kg	
1994	03NOV94	01LH	S	9.1	9.1	DET	5.7	mg/kg	
1994	03NOV94	02LH	S	5.0	5.0	DET	5.8	mg/kg	J
1994	03NOV94	03LH	S	11.2	11.2	DET	7.0	mg/kg	
1994	05NOV94	04LH	S	118.0	118.0	DET	7.3	mg/kg	
1994	12NOV94	05LH	S	5.9	5.9	DET	6.3	mg/kg	J
1994	12NOV94	06LH	S	9.9	9.9	DET	3.7	mg/kg	
1994	11NOV94	11LH	S	12.6	12.6	DET	6.5	mg/kg	

N = 32

------ Site=Lake Holloman MEDIA=Sludges Analyte=alpha-BHC Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.001300	.0013000	DET	0.0013	mg/kg	
1992	27FEB92	LH-02	S	.007900	.0079000	DET	0.0053	mg/kg	C@
1992	27FEB92	LH-03	S	.006000	.0060000	DET	0.0067	mg/kg	
1992	28FEB92	LH-04	S	.002300	.0023000	DET	0.0023	mg/kg	
1992	28FEB92	LH-05	S	.008000	.0080000	DET	0.0080	mg/kg	
1992	28FEB92	LH-06	S	.005500	.0055000	DET	0.0055	mg/kg	
1992	28FEB92	LH-07	S	.006000	.0060000	DET	0.0060	mg/kg	
1994	12NOV94	07LH	S	.000260	.0002600	DET	0.0046	mg/kg	J
1994	11NOV94	08LH	S	.000089	.0000890	DET	0.0030	mg/kg	J
1994	11NOV94	09LH	S	.	.0000154	ND	0.0034	mg/kg	
1994	11NOV94	10LH	S	.	.0000103	ND	0.0042	mg/kg	
1994	12NOV94	12LH	S	.	.0000141	ND	0.0043	mg/kg	
1994	11NOV94	13LH	S	.000088	.0000880	DET	0.0031	mg/kg	J
1994	11NOV94	14LH	S	.	.0000130	ND	0.0049	mg/kg	
1994	11NOV94	15LH	S	.	.0000145	ND	0.0036	mg/kg	
1994	11NOV94	16LH	S	.	.0000082	ND	0.0400	mg/kg	
1994	11NOV94	17LH	S	.	.0000013	ND	0.0043	mg/kg	
1994	12NOV94	18LH	S	.	.0000206	ND	0.0028	mg/kg	
1994	12NOV94	19LH	S	.000066	.0000660	DET	0.0027	mg/kg	J
1994	12NOV94	20LH	S	.	.0000087	ND	0.0029	mg/kg	
1994	12NOV94	21LH	S	.	.0000137	ND	0.0047	mg/kg	
1994	12NOV94	22LH	S	.	.0000131	ND	0.0069	mg/kg	
1994	12NOV94	23LH	S	.	.0000102	ND	0.0075	mg/kg	
1994	12NOV94	24LH	S	.	.0000003	ND	0.0160	mg/kg	
1994	12NOV94	25LH	S	.000180	.0001800	DET	0.0061	mg/kg	J
1994	03NOV94	01LH	S	.000023	.0000230	DET	0.0024	mg/kg	J
1994	03NOV94	02LH	S	.000120	.0001200	DET	0.0024	mg/kg	J
1994	03NOV94	03LH	S	.	.0000122	ND	0.0030	mg/kg	
1994	05NOV94	04LH	S	.	.0000166	ND	0.0062	mg/kg	

------ Site=Lake Holloman MEDIA=Sludges Analyte=alpha-BHC Method=SW8080 -------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	12NOV94	05LH	S	.	.00001447	ND	.0027	mg/kg	
1994	12NOV94	06LH	S	.000130	.00013000	DET	.0032	mg/kg	J
1994	11NOV94	11LH	S	.000055	.00005500	DET	.0028	mg/kg	J

N = 32

--- Site=Lake Holloman MEDIA=Sludges Analyte=alpha-Chlordane Method=SW8080 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.0013	0.0013	DET	.0013	mg/kg	
1992	27FEB92	LH-02	S	0.0053	0.0053	DET	.0053	mg/kg	
1992	27FEB92	LH-03	S	0.0060	0.0060	DET	.0067	mg/kg	
1992	28FEB92	LH-04	S	0.0590	0.0590	DET	.0023	mg/kg	C
1992	28FEB92	LH-05	S	0.0080	0.0080	DET	.0080	mg/kg	
1992	28FEB92	LH-06	S	0.0055	0.0055	DET	.0055	mg/kg	
1992	28FEB92	LH-07	S	0.0060	0.0060	DET	.0060	mg/kg	

N = 7

Site=Lake Holloman MEDIA=Sludges Analyte=bis(2-Ethylhexyl)phthalate Method=SW82

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.	0.9750	ND	1.3	mg/kg	
1992	27FEB92	LH-02	S	.	3.9750	ND	5.3	mg/kg	
1992	27FEB92	LH-03	S	85.9833	85.9833	DET	34.0	mg/kg	D
1992	28FEB92	LH-04	S	0.7200	0.7200	DET	2.4	mg/kg	J
1992	28FEB92	LH-05	S	28.0000	28.0000	DET	7.9	mg/kg	@
1992	28FEB92	LH-06	S	.	2.9120	ND	5.6	mg/kg	
1992	28FEB92	LH-07	S	6.1000	6.1000	DET	6.0	mg/kg	@

N = 7

------ Site=Lake Holloman MEDIA=Sludges Analyte=delta-BHC Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.5000	0.5000	DET	.0013	mg/kg	X
1992	27FEB92	LH-02	S	0.0053	0.0053	DET	.0053	mg/kg	
1992	27FEB92	LH-03	S	0.0060	0.0060	DET	.0067	mg/kg	

------ Site=Lake Holloman MEDIA=Sludges Analyte=delta-BHC Method=SW8080 -------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LH-04	S	0.12000	0.12000	DET	0.0470	mg/kg	XD@
1992	28FEB92	LH-05	S	0.00800	0.00800	DET	0.0080	mg/kg	
1992	28FEB92	LH-06	S	0.00550	0.00550	DET	0.0055	mg/kg	
1992	28FEB92	LH-07	S	7.00000	7.00000	DET	0.1200	mg/kg	CD
1994	12NOV94	07LH	S	0.00083	0.00083	DET	0.0046	mg/kg	J
1994	11NOV94	08LH	S	.	0.00018	ND	0.0030	mg/kg	
1994	11NOV94	09LH	S	.	0.00012	ND	0.0034	mg/kg	
1994	11NOV94	10LH	S	.	0.00018	ND	0.0042	mg/kg	
1994	12NOV94	12LH	S	.	0.00017	ND	0.0043	mg/kg	
1994	11NOV94	13LH	S	.	0.00021	ND	0.0031	mg/kg	
1994	11NOV94	14LH	S	.	0.00013	ND	0.0049	mg/kg	
1994	11NOV94	15LH	S	.	0.00024	ND	0.0036	mg/kg	
1994	11NOV94	16LH	S	.	0.00012	ND	0.0400	mg/kg	
1994	11NOV94	17LH	S	.	0.00022	ND	0.0043	mg/kg	
1994	12NOV94	18LH	S	.	0.00025	ND	0.0028	mg/kg	
1994	12NOV94	19LH	S	.	0.00005	ND	0.0027	mg/kg	
1994	12NOV94	20LH	S	.	0.00015	ND	0.0029	mg/kg	
1994	12NOV94	21LH	S	.	0.00010	ND	0.0047	mg/kg	
1994	12NOV94	22LH	S	.	0.00017	ND	0.0069	mg/kg	
1994	12NOV94	23LH	S	.	0.00018	ND	0.0075	mg/kg	
1994	12NOV94	24LH	S	.	0.00003	ND	0.0160	mg/kg	
1994	12NOV94	25LH	S	.	0.00022	ND	0.0061	mg/kg	
1994	03NOV94	01LH	S	.	0.00024	ND	0.0024	mg/kg	
1994	03NOV94	02LH	S	0.00026	0.00026	DET	0.0024	mg/kg	J
1994	03NOV94	03LH	S	0.00029	0.00029	DET	0.0030	mg/kg	J
1994	05NOV94	04LH	S	.	0.00004	ND	0.0062	mg/kg	
1994	12NOV94	05LH	S	.	0.00020	ND	0.0027	mg/kg	
1994	12NOV94	06LH	S	.	0.00024	ND	0.0032	mg/kg	
1994	11NOV94	11LH	S	.	0.00018	ND	0.0028	mg/kg	

N = 32

------ Site=Lake Holloman MEDIA=Sludges Analyte=gamma-BHC Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.00130	0.001300	DET	.0013	mg/kg	
1992	27FEB92	LH-02	S	0.01400	0.014000	DET	.0053	mg/kg	X@
1992	27FEB92	LH-03	S	0.00835	0.008350	DET	.0067	mg/kg	
1992	28FEB92	LH-04	S	0.00230	0.002300	DET	.0023	mg/kg	
1992	28FEB92	LH-05	S	0.00800	0.008000	DET	.0080	mg/kg	
1992	28FEB92	LH-06	S	0.00550	0.005500	DET	.0055	mg/kg	
1992	28FEB92	LH-07	S	0.00600	0.006000	DET	.0060	mg/kg	
1994	12NOV94	07LH	S	0.00018	0.000180	DET	.0046	mg/kg	VJ
1994	11NOV94	08LH	S	.	0.000126	ND	.0030	mg/kg	

------ Site=Lake Holloman MEDIA=Sludges Analyte=gamma-BHC Method=SW8080 -------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	11NOV94	09LH	S	.	.00000198	ND	0.0034	mg/kg	
1994	11NOV94	10LH	S	.	.00002258	ND	0.0042	mg/kg	
1994	12NOV94	12LH	S	.	.00006825	ND	0.0043	mg/kg	
1994	11NOV94	13LH	S	.	.00000760	ND	0.0031	mg/kg	
1994	11NOV94	14LH	S	.	.00010875	ND	0.0049	mg/kg	
1994	11NOV94	15LH	S	.	.00013714	ND	0.0036	mg/kg	V
1994	11NOV94	16LH	S	.	.00007003	ND	0.0400	mg/kg	
1994	11NOV94	17LH	S	.	.00005190	ND	0.0043	mg/kg	
1994	12NOV94	18LH	S	.	.00017769	ND	0.0028	mg/kg	V
1994	12NOV94	19LH	S	.	.00004848	ND	0.0027	mg/kg	V
1994	12NOV94	20LH	S	.	.00001475	ND	0.0029	mg/kg	V
1994	12NOV94	21LH	S	.	.00013141	ND	0.0047	mg/kg	V
1994	12NOV94	22LH	S	.	.00007085	ND	0.0069	mg/kg	
1994	12NOV94	23LH	S	.	.00016671	ND	0.0075	mg/kg	V
1994	12NOV94	24LH	S	.	.00012109	ND	0.0160	mg/kg	V
1994	12NOV94	25LH	S	.	.00012587	ND	0.0061	mg/kg	V
1994	03NOV94	01LH	S	.	.00015944	NO	0.0024	mg/kg	
1994	03NOV94	02LH	S	.	.00017152	ND	0.0024	mg/kg	
1994	03NOV94	03LH	S	.	.00009872	ND	0.0030	mg/kg	
1994	05NOV94	04LH	S	.	.00002575	ND	0.0062	mg/kg	
1994	12NOV94	05LH	S	.	.00005890	ND	0.0027	mg/kg	
1994	12NOV94	06LH	S	.	.00004028	ND	0.0032	mg/kg	
1994	11NOV94	11LH	S	.	.00004966	ND	0.0028	mg/kg	

N = 32

--- Site=Lake Holloman MEDIA=Sludges Analyte=gamma-Chlordane Method=SW8080 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.00150	0.00150	DET	.0013	mg/kg	C@
1992	27FEB92	LH-02	S	0.01100	0.01100	DET	.0053	mg/kg	X@
1992	27FEB92	LH-03	S	0.00775	0.00775	DET	.0067	mg/kg	
1992	28FEB92	LH-04	S	0.07500	0.07500	DET	.0023	mg/kg	C
1992	28FEB92	LH-05	S	0.00800	0.00800	DET	.0080	mg/kg	
1992	28FEB92	LH-06	S	0.00630	0.00630	DET	.0055	mg/kg	X@
1992	28FEB92	LH-07	S	0.00370	0.00370	DET	.0060	mg/kg	JX

N = 7

-------- Site=Lake Holloman MEDIA=Soils Analyte=4,4'-DDE Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	27FEB92	LH-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	27FEB92	LH-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	27FEB92	LH-03	S	0.0013	0.0013	DET	0.0013	mg/kg	
1992	28FEB92	LH-04	S	0.0017	0.0017	DET	0.0015	mg/kg	X@
1992	28FEB92	LH-05	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	28FEB92	LH-05	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	28FEB92	LH-06	S	0.0016	0.0016	DET	0.0016	mg/kg	
1992	28FEB92	LH-07	S	0.0160	0.0160	DET	0.0160	mg/kg	

N = 9

-------- Site=Lake Holloman MEDIA=Soils Analyte=Acetone Method=SW8240 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.050	0.0500	DET	0.15	mg/kg	J
1992	27FEB92	LH-02	S	.	0.1050	ND	0.14	mg/kg	
1992	27FEB92	LH-02	S	.	0.1050	ND	0.14	mg/kg	
1992	27FEB92	LH-03	S	.	0.1050	ND	0.14	mg/kg	
1992	28FEB92	LH-04	S	0.110	0.1100	DET	0.15	mg/kg	J
1992	28FEB92	LH-05	S	0.051	0.0510	DET	0.15	mg/kg	J
1992	28FEB92	LH-05	S	.	0.1125	ND	0.15	mg/kg	
1992	28FEB92	LH-06	S	0.054	0.0540	DET	0.16	mg/kg	J
1992	28FEB92	LH-07	S	0.170	0.1700	DET	0.15	mg/kg	@

N = 9

-------- Site=Lake Holloman MEDIA=Soils Analyte=Arsenic Method=SW7060 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	2.5	2.5	DET	0.85	mg/kg	@
1992	27FEB92	LH-02	S	1.6	1.6	DET	0.78	mg/kg	@
1992	27FEB92	LH-02	S	1.0	1.0	DET	0.81	mg/kg	@
1992	27FEB92	LH-03	S	2.1	2.1	DET	1.50	mg/kg	@
1992	28FEB92	LH-04	S	2.3	2.3	DET	0.96	mg/kg	@
1992	28FEB92	LH-05	S	3.3	3.3	DET	0.85	mg/kg	@
1992	28FEB92	LH-05	S	2.0	2.0	DET	0.84	mg/kg	@
1992	28FEB92	LH-06	S	4.0	4.0	DET	0.99	mg/kg	@
1992	28FEB92	LH-07	S	2.9	2.9	DET	2.00	mg/kg	@

N = 9

--------- Site=Lake Holloman MEDIA=Soils Analyte=Barium Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	54	54	DET	4.0	mg/kg	
1992	27FEB92	LH-02	S	49	49	DET	3.8	mg/kg	
1992	27FEB92	LH-02	S	69	69	DET	3.8	mg/kg	
1992	27FEB92	LH-03	S	89	89	DET	3.8	mg/kg	
1992	28FEB92	LH-04	S	43	43	DET	4.0	mg/kg	
1992	28FEB92	LH-05	S	110	110	DET	4.0	mg/kg	
1992	28FEB92	LH-05	S	92	92	DET	4.0	mg/kg	
1992	28FEB92	LH-06	S	69	69	DET	4.4	mg/kg	
1992	28FEB92	LH-07	S	95	95	DET	5.3	mg/kg	

N = 9

---- Site=Lake Holloman MEDIA=Soils Analyte=Carbon disulfide Method=SW8240 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.	0.005475	ND	.0073	mg/kg	
1992	27FEB92	LH-02	S	.	0.005250	ND	.0070	mg/kg	
1992	27FEB92	LH-02	S	.	0.005175	ND	.0069	mg/kg	
1992	27FEB92	LH-03	S	.	0.005100	ND	.0068	mg/kg	
1992	28FEB92	LH-04	S	0.016	0.016000	DET	.0076	mg/kg	@
1992	28FEB92	LH-05	S	.	0.005775	ND	.0077	mg/kg	
1992	28FEB92	LH-05	S	.	0.005700	ND	.0076	mg/kg	
1992	28FEB92	LH-06	S	.	0.005850	ND	.0078	mg/kg	
1992	28FEB92	LH-07	S	.	0.005775	ND	.0077	mg/kg	

N = 9

-------- Site=Lake Holloman MEDIA=Soils Analyte=Chromium Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.	3.00	ND	4.0	mg/kg	
1992	27FEB92	LH-02	S	.	2.85	ND	3.8	mg/kg	
1992	27FEB92	LH-02	S	4.4	4.40	DET	3.8	mg/kg	@
1992	27FEB92	LH-03	S	7.1	7.10	DET	3.8	mg/kg	@
1992	28FEB92	LH-04	S	.	3.00	ND	4.0	mg/kg	
1992	28FEB92	LH-05	S	8.3	8.30	DET	4.0	mg/kg	@
1992	28FEB92	LH-05	S	7.3	7.30	DET	4.0	mg/kg	@
1992	28FEB92	LH-06	S	5.1	5.10	DET	4.4	mg/kg	@
1992	28FEB92	LH-07	S	7.0	7.00	DET	5.3	mg/kg	@

N = 9

--------- Site=Lake Holloman MEDIA=Soils Analyte=Cobalt Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.	3.00	ND	4.0	mg/kg	
1992	27FEB92	LH-02	S	.	2.85	ND	3.8	mg/kg	
1992	27FEB92	LH-02	S	.	2.85	ND	3.8	mg/kg	
1992	27FEB92	LH-03	S	.	2.85	ND	3.8	mg/kg	
1992	28FEB92	LH-04	S	.	3.00	ND	4.0	mg/kg	
1992	28FEB92	LH-05	S	4.0	4.00	DET	4.0	mg/kg	@
1992	28FEB92	LH-05	S	.	3.00	ND	4.0	mg/kg	
1992	28FEB92	LH-06	S	.	3.30	ND	4.4	mg/kg	
1992	28FEB92	LH-07	S	5.7	5.70	DET	5.3	mg/kg	@

N = 9

-------- Site=Lake Holloman MEDIA=Soils Analyte=Cyanide Method=SW9012 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	1.40	1.40	DET	0.32	mg/kg	@
1992	27FEB92	LH-02	S	3.40	3.40	DET	0.29	mg/kg	
1992	27FEB92	LH-02	S	1.30	1.30	DET	0.33	mg/kg	@
1992	27FEB92	LH-03	S	0.55	0.55	DET	0.30	mg/kg	@
1992	28FEB92	LH-04	S	1.30	1.30	DET	0.29	mg/kg	@
1992	28FEB92	LH-05	S	11.00	11.00	DET	0.31	mg/kg	
1992	28FEB92	LH-05	S	0.67	0.67	DET	0.34	mg/kg	@
1992	28FEB92	LH-06	S	4.30	4.30	DET	0.36	mg/kg	
1992	28FEB92	LH-07	S	0.37	0.37	DET	0.37	mg/kg	

N = 9

---- Site=Lake Holloman MEDIA=Soils Analyte=Endrin aldehyde Method=SW8080 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.0029	0.0029	DET	0.0029	mg/kg	
1992	27FEB92	LH-02	S	0.0028	0.0028	DET	0.0028	mg/kg	
1992	27FEB92	LH-02	S	0.0015	0.0015	DET	0.0027	mg/kg	JC
1992	27FEB92	LH-03	S	0.0027	0.0027	DET	0.0027	mg/kg	
1992	28FEB92	LH-04	S	0.0030	0.0030	DET	0.0030	mg/kg	
1992	28FEB92	LH-05	S	0.0030	0.0030	DET	0.0030	mg/kg	
1992	28FEB92	LH-05	S	0.0030	0.0030	DET	0.0030	mg/kg	
1992	28FEB92	LH-06	S	0.0031	0.0031	DET	0.0031	mg/kg	
1992	28FEB92	LH-07	S	0.0320	0.0320	DET	0.0320	mg/kg	

N = 9

------- Site=Lake Holloman MEDIA=Soils Analyte=Heptachlor Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	27FEB92	LH-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	27FEB92	LH-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	27FEB92	LH-03	S	0.0013	0.0013	DET	0.0013	mg/kg	
1992	28FEB92	LH-04	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	28FEB92	LH-05	S	0.0022	0.0022	DET	0.0015	mg/kg	X@
1992	28FEB92	LH-05	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	28FEB92	LH-06	S	0.0016	0.0016	DET	0.0016	mg/kg	
1992	28FEB92	LH-07	S	0.0160	0.0160	DET	0.0160	mg/kg	

N = 9

-------- Site=Lake Holloman MEDIA=Soils Analyte=Isodrin Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	27FEB92	LH-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	27FEB92	LH-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	27FEB92	LH-03	S	0.0013	0.0013	DET	0.0013	mg/kg	
1992	28FEB92	LH-04	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	28FEB92	LH-05	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	28FEB92	LH-05	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	28FEB92	LH-06	S	0.0016	0.0016	DET	0.0016	mg/kg	
1992	28FEB92	LH-07	S	0.0420	0.0420	DET	0.0160	mg/kg	X@

N = 9

---------- Site=Lake Holloman MEDIA=Soils Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	1.7	1.7	DET	0.32	mg/kg	
1992	27FEB92	LH-02	S	2.2	2.2	DET	0.29	mg/kg	
1992	27FEB92	LH-02	S	1.8	1.8	DET	0.30	mg/kg	
1992	27FEB92	LH-03	S	2.6	2.6	DET	0.28	mg/kg	
1992	28FEB92	LH-04	S	1.7	1.7	DET	0.36	mg/kg	@
1992	28FEB92	LH-05	S	3.6	3.6	DET	0.32	mg/kg	
1992	28FEB92	LH-05	S	3.2	3.2	DET	0.31	mg/kg	
1992	28FEB92	LH-06	S	3.8	3.8	DET	0.37	mg/kg	
1992	28FEB92	LH-07	S	2.1	2.1	DET	0.37	mg/kg	

N = 9

-------- Site=Lake Holloman MEDIA=Soils Analyte=Mercury Method=SW7471 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-D1	S	0.070	0.070	DET	0.065	mg/kg	@
1992	27FEB92	LH-02	S	0.062	0.062	DET	0.062	mg/kg	
1992	27FEB92	LH-02	S	0.062	0.062	DET	0.062	mg/kg	
1992	27FEB92	LH-03	S	0.061	0.061	DET	0.061	mg/kg	
1992	28FEB92	LH-04	S	0.068	0.068	DET	0.068	mg/kg	
1992	28FEB92	LH-05	S	0.069	0.069	DET	0.069	mg/kg	
1992	28FEB92	LH-D5	S	0.068	0.068	DET	0.068	mg/kg	
1992	28FEB92	LH-06	S	0.530	0.530	DET	0.071	mg/kg	
1992	28FEB92	LH-07	S	0.071	0.071	DET	0.071	mg/kg	

N = 9

-- Site=Lake Holloman MEDIA=Soils Analyte=Methyl ethyl ketone Method=SW8240 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.150	0.150	DET	0.15	mg/kg	
1992	27FEB92	LH-02	S	0.140	0.140	DET	0.14	mg/kg	
1992	27FEB92	LH-02	S	0.140	0.140	DET	0.14	mg/kg	
1992	27FEB92	LH-03	S	0.140	0.140	DET	0.14	mg/kg	
1992	28FEB92	LH-04	S	0.150	0.150	DET	0.15	mg/kg	
1992	28FEB92	LH-05	S	0.150	0.150	DET	0.15	mg/kg	
1992	28FEB92	LH-05	S	0.150	0.150	DET	0.15	mg/kg	
1992	28FEB92	LH-06	S	0.160	0.160	DET	0.16	mg/kg	
1992	28FEB92	LH-07	S	0.019	0.019	DET	0.15	mg/kg	J

N = 9

--- Site=Lake Holloman MEDIA=Soils Analyte=Methylene chloride Method=SW8240 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.0140	0.0140	DET	.0073	mg/kg	@
1992	27FEB92	LH-02	S	0.0059	0.0059	DET	.0070	mg/kg	J
1992	27FEB92	LH-02	S	0.0190	0.0190	DET	.0069	mg/kg	@
1992	27FEB92	LH-03	S	0.0110	0.0110	DET	.0068	mg/kg	@
1992	28FEB92	LH-04	S	0.0100	0.0100	DET	.0076	mg/kg	@
1992	28FEB92	LH-05	S	0.0240	0.0240	DET	.0077	mg/kg	@
1992	28FEB92	LH-05	S	0.0250	0.0250	DET	.0076	mg/kg	@
1992	28FEB92	LH-06	S	0.0070	0.0070	DET	.0078	mg/kg	J
1992	28FEB92	LH-07	S	0.0330	0.0330	DET	.0077	mg/kg	@

N = 9

-------- Site=Lake Holloman MEDIA=Soils Analyte=Selenium Method=SW7740 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.	0.3975	ND	0.53	mg/kg	
1992	27FEB92	LH-02	S	0.97	0.9700	DET	0.49	mg/kg	@
1992	27FEB92	LH-02	S	.	0.3750	ND	0.50	mg/kg	
1992	27FEB92	LH-03	S	1.20	1.2000	DET	0.46	mg/kg	@
1992	28FEB92	LH-04	S	0.64	0.6400	DET	0.60	mg/kg	@
1992	28FEB92	LH-05	S	.	0.3975	ND	0.53	mg/kg	
1992	28FEB92	LH-05	S	.	0.3900	ND	0.52	mg/kg	
1992	28FEB92	LH-06	S	.	0.4650	ND	0.62	mg/kg	
1992	28FEB92	LH-07	S	.	0.4575	ND	0.61	mg/kg	

N = 9

-------- Site=Lake Holloman MEDIA=Soils Analyte=Sulfide Method=SW9030 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	100	100	DET	36	mg/kg	@
1992	27FEB92	LH-02	S	35	35	DET	35	mg/kg	
1992	27FEB92	LH-02	S	35	35	DET	35	mg/kg	
1992	27FEB92	LH-03	S	120	120	DET	32	mg/kg	@
1992	28FEB92	LH-04	S	160	160	DET	37	mg/kg	@
1992	28FEB92	LH-05	S	170	170	DET	38	mg/kg	@
1992	28FEB92	LH-05	S	37	37	DET	37	mg/kg	
1992	28FEB92	LH-06	S	79	79	DET	38	mg/kg	@
1992	28FEB92	LH-07	S	360	360	DET	39	mg/kg	

N = 9

-------- Site=Lake Holloman MEDIA=Soils Analyte=Toluene Method=SW8240 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.00130	.00130	DET	.0073	mg/kg	J
1992	27FEB92	LH-02	S	.00350	.00350	DET	.0070	mg/kg	J
1992	27FEB92	LH-02	S	.00220	.00220	DET	.0069	mg/kg	J
1992	27FEB92	LH-03	S	.00026	.00026	DET	.0068	mg/kg	J
1992	28FEB92	LH-04	S	.00760	.00760	DET	.0076	mg/kg	
1992	28FEB92	LH-05	S	.00014	.00014	DET	.0077	mg/kg	J
1992	28FEB92	LH-05	S	.00042	.00042	DET	.0076	mg/kg	J
1992	28FEB92	LH-06	S	.00022	.00022	DET	.0078	mg/kg	J
1992	28FEB92	LH-07	S	.00033	.00033	DET	.0077	mg/kg	J

N = 9

-------- Site=Lake Holloman MEDIA=Soils Analyte=Vanadium Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.	6.075	ND	8.1	mg/kg	
1992	27FEB92	LH-02	S	8.1	8.100	DET	7.7	mg/kg	@
1992	27FEB92	LH-02	S	9.2	9.200	DET	7.7	mg/kg	@
1992	27FEB92	LH-03	S	14.0	14.000	DET	7.5	mg/kg	@
1992	28FEB92	LH-04	S	.	6.075	ND	8.1	mg/kg	
1992	28FEB92	LH-05	S	19.0	19.000	DET	8.0	mg/kg	@
1992	28FEB92	LH-05	S	14.0	14.000	DET	8.0	mg/kg	@
1992	28FEB92	LH-06	S	15.0	15.000	DET	8.9	mg/kg	@
1992	28FEB92	LH-07	S	16.0	16.000	DET	11.0	mg/kg	@

N = 9

---------- Site=Lake Holloman MEDIA=Soils Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	12	12	DET	8.1	mg/kg	@
1992	27FEB92	LH-02	S	14	14	DET	7.7	mg/kg	@
1992	27FEB92	LH-02	S	13	13	DET	7.7	mg/kg	@
1992	27FEB92	LH-03	S	22	22	DET	7.5	mg/kg	@
1992	28FEB92	LH-04	S	11	11	DET	8.1	mg/kg	@
1992	28FEB92	LH-05	S	29	29	DET	8.0	mg/kg	@
1992	28FEB92	LH-05	S	20	20	DET	8.0	mg/kg	@
1992	28FEB92	LH-06	S	16	16	DET	8.9	mg/kg	@
1992	28FEB92	LH-07	S	22	22	DET	11.0	mg/kg	@

N = 9

------- Site=Lake Holloman MEDIA=Soils Analyte=alpha-BHC Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	27FEB92	LH-02	S	0.0012	0.0012	DET	0.0014	mg/kg	JC
1992	27FEB92	LH-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	27FEB92	LH-03	S	0.0013	0.0013	DET	0.0013	mg/kg	
1992	28FEB92	LH-04	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	28FEB92	LH-05	S	0.0015	0.0015	DET	0.0015	mg/kg	X@
1992	28FEB92	LH-05	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	28FEB92	LH-06	S	0.0016	0.0016	DET	0.0016	mg/kg	
1992	28FEB92	LH-07	S	0.0160	0.0160	DET	0.0160	mg/kg	

N = 9

Site=Lake Holloman MEDIA=Soils Analyte=bis(2-Ethylhexyl)phthalate Method=SW8270

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	.	1.050	ND	1.4	mg/kg	
1992	27FEB92	LH-02	S	0.19	0.190	DET	1.4	mg/kg	J
1992	27FEB92	LH-02	S	.	1.050	ND	1.4	mg/kg	
1992	27FEB92	LH-03	S	.	1.050	ND	1.4	mg/kg	
1992	28FEB92	LH-04	S	.	1.125	ND	1.5	mg/kg	
1992	28FEB92	LH-05	S	.	1.125	ND	1.5	mg/kg	
1992	28FEB92	LH-05	S	0.13	0.130	DET	1.5	mg/kg	J
1992	28FEB92	LH-06	S	0.74	0.740	DET	1.6	mg/kg	J
1992	28FEB92	LH-07	S	0.20	0.200	DET	1.6	mg/kg	J

N = 9

------- Site=Lake Holloman MEDIA=Soils Analyte=delta-BHC Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	27FEB92	LH-02	S	0.4000	0.4000	DET	0.0014	mg/kg	X
1992	27FEB92	LH-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	27FEB92	LH-03	S	0.5000	0.5000	DET	0.0013	mg/kg	X
1992	28FEB92	LH-04	S	0.6100	0.6100	DET	0.0015	mg/kg	X
1992	28FEB92	LH-05	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	28FEB92	LH-05	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	28FEB92	LH-06	S	0.5800	0.5800	DET	0.0016	mg/kg	X
1992	28FEB92	LH-07	S	4.2000	4.2000	DET	0.0160	mg/kg	XD

N = 9

------- Site=Lake Holloman MEDIA=Soils Analyte=gamma-BHC Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	27FEB92	LH-01	S	0.0150	0.0150	DET	0.0015	mg/kg	C
1992	27FEB92	LH-02	S	0.0120	0.0120	DET	0.0014	mg/kg	C
1992	27FEB92	LH-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	27FEB92	LH-03	S	0.0094	0.0094	DET	0.0013	mg/kg	X
1992	28FEB92	LH-04	S	0.0180	0.0180	DET	0.0015	mg/kg	C
1992	28FEB92	LH-05	S	0.0051	0.0051	DET	0.0015	mg/kg	C@
1992	28FEB92	LH-05	S	0.0017	0.0017	DET	0.0015	mg/kg	C@
1992	28FEB92	LH-06	S	0.0044	0.0044	DET	0.0016	mg/kg	X@
1992	28FEB92	LH-07	S	0.0250	0.0250	DET	0.0160	mg/kg	X@

N = 9

---- Site=Lake Holloman MEDIA=Surface Water Analyte=4,4'-DDD Method=SW8080 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	04MAR93	LH-02	L	.0000042	.0000042	DET	.0000095	mg/L	JX

N = 1

---- Site=Lake Holloman MEDIA=Surface Water Analyte=4,4'-DDT Method=SW8080 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	04MAR93	LH-01	L	.	.0000095	ND	.000019	mg/L	
1993	04MAR93	LH-02	L	.	.0000095	ND	.000019	mg/L	
1993	03MAR93	LH-03	L	.000016	.0000160	DET	.000019	mg/L	J

N = 3

---- Site=Lake Holloman MEDIA=Surface Water Analyte=Arsenic Method=SW7060 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	.0058	.0058	DET	.	mg/L	@
1990	09OCT90	H-2	L	.0065	.0065	DET	.	mg/L	@
1990	09OCT90	H-3	L	.0076	.0076	DET	.	mg/L	@
1990	09OCT90	H-4	L	.0079	.0079	DET	.	mg/L	@
1990	09OCT90	H-5	L	.0088	.0088	DET	.	mg/L	@

N = 5

----- Site=Lake Holloman MEDIA=Surface Water Analyte=Barium Method=SW6010 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	0.041	0.041	DET	.	mg/L	@
1990	09OCT90	H-2	L	0.039	0.039	DET	.	mg/L	@
1990	09OCT90	H-3	L	0.042	0.042	DET	.	mg/L	@
1990	09OCT90	H-4	L	0.039	0.039	DET	.	mg/L	@
1990	09OCT90	H-5	L	0.039	0.039	DET	.	mg/L	@

N = 5

----- Site=Lake Holloman MEDIA=Surface Water Analyte=Boron Method=SW6010 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	0.33	0.33	DET	.	mg/L	@
1990	09OCT90	H-2	L	0.36	0.36	DET	.	mg/L	@
1990	09OCT90	H-3	L	0.36	0.36	DET	.	mg/L	@
1990	09OCT90	H-4	L	0.33	0.33	DET	.	mg/L	@
1990	09OCT90	H-5	L	0.27	0.27	DET	.	mg/L	@

N = 5

Site=Lake Holloman MEDIA=Surface Water Analyte=Butylbenzylphthalate Method=SW82

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	.	0.010	ND	0.02	mg/L	
1990	09OCT90	H-2	L	.	0.010	ND	0.02	mg/L	
1990	09OCT90	H-3	L	0.042	0.042	DET	.	mg/L	@
1990	09OCT90	H-4	L	.	0.010	ND	0.02	mg/L	
1990	09OCT90	H-5	L	.	0.005	ND	0.01	mg/L	

N = 5

Site=Lake Holloman MEDIA=Surface Water Analyte=Dibutylphthalate Method=SW8270

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	.	0.010	ND	0.02	mg/L	
1990	09OCT90	H-2	L	.	0.010	ND	0.02	mg/L	
1990	09OCT90	H-3	L	0.02	0.020	DET	.	mg/L	J
1990	09OCT90	H-4	L	.	0.010	ND	0.02	mg/L	
1990	09OCT90	H-5	L	.	0.005	ND	0.01	mg/L	

N = 5

---- Site=Lake Holloman MEDIA=Surface Water Analyte=Dieldrin Method=SW8080 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	04MAR93	LH-01	L	.	.00000475	ND	.0000095	mg/L	
1993	04MAR93	LH-02	L	.	.00000475	ND	.0000095	mg/L	
1993	03MAR93	LH-03	L	.000011	.00001100	DET	.0000095	mg/L	X@

N = 3

Site=Lake Holloman MEDIA=Surface Water Analyte=Diethylphthalate Method=SW8270

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	.	0.010	ND	0.02	mg/L	
1990	09OCT90	H-2	L	.	0.010	ND	0.02	mg/L	
1990	09OCT90	H-3	L	0.014	0.014	DET	.	mg/L	J
1990	09OCT90	H-4	L	.	0.010	ND	0.02	mg/L	
1990	09OCT90	H-5	L	.	0.005	ND	0.01	mg/L	

N = 5

Site=Lake Holloman MEDIA=Surface Water Analyte=Endosulfan sulfate Method=SW8080

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	04MAR93	LH-02	L	.000001	.000001	DET	.000048	mg/L	J

N = 1

Site=Lake Holloman MEDIA=Surface Water Analyte=Endrin aldehyde Method=SW8080

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	04MAR93	LH-02	L	.0000045	.0000045	DET	.000019	mg/L	JX

N = 1

- Site=Lake Holloman MEDIA=Surface Water Analyte=Endrin ketone Method=SW8080 --

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	.00003	.00003	DET	.	mg/L	J

N = 1

------ Site=Lake Holloman MEDIA=Surface Water Analyte=Lead Method=SW7421 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	.0043	.0043	DET	.	mg/L	@
1990	09OCT90	H-2	L	.0039	.0039	DET	.	mg/L	@
1990	09OCT90	H-3	L	.0027	.0027	DET	.	mg/L	@
1990	09OCT90	H-4	L	.0029	.0029	DET	.	mg/L	@

------ Site=Lake Holloman MEDIA=Surface Water Analyte=Lead Method=SW7421 ------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-5	L	.0023	.0023	DET	.	mg/L	@

N = 5

- Site=Lake Holloman MEDIA=Surface Water Analyte=Lead (organic) Method=E239.1 -

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	0.10	0.10	DET	.	mg/L	@
1990	09OCT90	H-2	L	0.16	0.16	DET	.	mg/L	@
1990	09OCT90	H-3	L	0.27	0.27	DET	.	mg/L	@
1990	09OCT90	H-4	L	0.15	0.15	DET	.	mg/L	@
1990	09OCT90	H-5	L	0.35	0.35	DET	.	mg/L	@

N = 5

--- Site=Lake Holloman MEDIA=Surface Water Analyte=Manganese Method=SW6010 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	0.055	0.055	DET	.	mg/L	
1990	09OCT90	H-2	L	0.053	0.053	DET	.	mg/L	
1990	09OCT90	H-3	L	0.060	0.060	DET	.	mg/L	
1990	09OCT90	H-4	L	0.052	0.052	DET	.	mg/L	
1990	09OCT90	H-5	L	0.053	0.053	DET	.	mg/L	

N = 5

---- Site=Lake Holloman MEDIA=Surface Water Analyte=Mercury Method=SW7470 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	.00033	.00033	DET	.	mg/L	@
1990	09OCT90	H-2	L	.00033	.00033	DET	.	mg/L	@
1990	09OCT90	H-3	L	.00022	.00022	DET	.	mg/L	@
1990	09OCT90	H-4	L	.00022	.00022	DET	.	mg/L	@
1990	09OCT90	H-5	L	.00022	.00022	DET	.	mg/L	@

N = 5

-- Site=Lake Holloman MEDIA=Surface Water Analyte=Methoxychlor Method=SW8080 --

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	.	0.002500	ND	0.005000	mg/L	
1990	09OCT90	H-2	L	0.05	0.050000	DET	.	mg/L	
1990	09OCT90	H-3	L	0.05	0.050000	DET	.	mg/L	
1990	09OCT90	H-4	L	.	0.005000	ND	0.010000	mg/L	
1990	09OCT90	H-5	L	0.05	0.050000	DET	.	mg/L	
1993	04MAR93	LH-01	L	.	0.000024	ND	0.000048	mg/L	
1993	04MAR93	LH-02	L	.	0.000024	ND	0.000048	mg/L	
1993	03MAR93	LH-03	L	.	0.000024	ND	0.000048	mg/L	

N = 8

---- Site=Lake Holloman MEDIA=Surface Water Analyte=Silicon Method=SW6010 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	15	15	DET	.	mg/L	
1990	09OCT90	H-2	L	11	11	DET	.	mg/L	
1990	09OCT90	H-3	L	14	14	DET	.	mg/L	
1990	09OCT90	H-4	L	12	12	DET	.	mg/L	
1990	09OCT90	H-5	L	12	12	DET	.	mg/L	

N = 5

---- Site=Lake Holloman MEDIA=Surface Water Analyte=Vanadium Method=SW6010 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	.	.0015	ND	.003	mg/L	
1990	09OCT90	H-2	L	.	.0015	ND	.003	mg/L	
1990	09OCT90	H-3	L	.0043	.0043	DET	.	mg/L	@
1990	09OCT90	H-4	L	.	.0015	ND	.003	mg/L	
1990	09OCT90	H-5	L	.	.0015	ND	.003	mg/L	

N = 5

------ Site=Lake Holloman MEDIA=Surface Water Analyte=Zinc Method=SW6010 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	0.0081	0.0081	DET	.	mg/L	@
1990	09OCT90	H-2	L	0.0120	0.0120	DET	.	mg/L	@
1990	09OCT90	H-3	L	0.0290	0.0290	DET	.	mg/L	@

------ Site=Lake Holloman MEDIA=Surface Water Analyte=Zinc Method=SW6010 ------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-4	L	0.010	0.010	DET	.	mg/L	@
1990	09OCT90	H-5	L	0.011	0.011	DET	.	mg/L	@

N = 5

--- Site=Lake Holloman MEDIA=Surface Water Analyte=alpha-BHC Method=SW8080 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	04MAR93	LH-01	L	.0000094	.0000094	DET	.0000095	mg/L	JX
1993	04MAR93	LH-02	L	.0000085	.0000085	DET	.0000095	mg/L	J
1993	03MAR93	LH-03	L	.0000085	.0000085	DET	.0000095	mg/L	J

N = 3

Site=Lake Holloman MEDIA=Surface Water Analyte=bis(2-Ethylhexyl)phthalate Metho

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	H-1	L	0.009	0.009	DET	.	mg/L	JB
1990	09OCT90	H-2	L	0.010	0.010	DET	.	mg/L	JB
1990	09OCT90	H-3	L	0.069	0.069	DET	.	mg/L	@B
1990	09OCT90	H-4	L	.	0.010	ND	0.02	mg/L	
1990	09OCT90	H-5	L	0.008	0.008	DET	.	mg/L	JB

N = 5

--- Site=Lake Holloman MEDIA=Surface Water Analyte=gamma-BHC Method=SW8080 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	04MAR93	LH-01	L	.0000099	.00000990	DET	.0000095	mg/L	@
1993	04MAR93	LH-02	L	.	.00000475	ND	.0000095	mg/L	
1993	03MAR93	LH-03	L	.	.00000475	ND	.0000095	mg/L	

N = 3

--------- Site=Lake Stinky MEDIA=Soils Analyte=2,4,5-T Method=SW8150 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.034	0.0340	DET	0.034	mg/kg	
1992	28FEB92	LS-01	S	0.027	0.0270	DET	0.027	mg/kg	
1992	28FEB92	LS-02	S	0.002	0.0020	DET	0.031	mg/kg	JX
1992	28FEB92	LS-02	S	0.028	0.0280	DET	0.028	mg/kg	
1992	28FEB92	LS-03	S	0.032	0.0320	DET	0.032	mg/kg	
1992	28FEB92	LS-03	S	0.028	0.0280	DET	0.028	mg/kg	
1993	02MAR93	LS-05	S	.	0.0165	ND	0.033	mg/kg	
1993	02MAR93	LS-06	S	.	0.0145	ND	0.029	mg/kg	

N = 8

--------- Site=Lake Stinky MEDIA=Soils Analyte=4,4'-DDD Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	01NOV94	01LS	S	.000160	.00016000	DET	.0051	mg/kg	VJ
1994	01NOV94	02LS	S	.	.00000981	ND	.0050	mg/kg	
1994	01NOV94	03LS	S	.	.00000135	ND	.0052	mg/kg	
1994	01NOV94	04LS	S	.	.00000650	ND	.0054	mg/kg	V
1994	01NOV94	05LS	S	.	.00001378	ND	.0047	mg/kg	
1994	01NOV94	06LS	S	.000050	.00005000	DET	.0049	mg/kg	J
1994	01NOV94	07LS	S	.	.00000707	ND	.0053	mg/kg	
1994	01NOV94	08LS	S	.	.00001759	ND	.0053	mg/kg	
1994	01NOV94	09LS	S	.	.00000285	ND	.0045	mg/kg	
1994	01NOV94	10LS	S	.000019	.00001900	DET	.0045	mg/kg	J
1994	01NOV94	11LS	S	.	.00001075	ND	.0043	mg/kg	

N = 11

--------- Site=Lake Stinky MEDIA=Soils Analyte=4,4'-DDT Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	01NOV94	01LS	S	.	.0007524	ND	.0051	mg/kg	
1994	01NOV94	02LS	S	.	.0006441	ND	.0050	mg/kg	
1994	01NOV94	03LS	S	.	.0007239	ND	.0052	mg/kg	V
1994	01NOV94	04LS	S	.00520	.0052000	DET	.0054	mg/kg	J
1994	01NOV94	05LS	S	.	.0007413	ND	.0047	mg/kg	V
1994	01NOV94	06LS	S	.00260	.0026000	DET	.0049	mg/kg	J
1994	01NOV94	07LS	S	.	.0003030	ND	.0053	mg/kg	V
1994	01NOV94	08LS	S	.00077	.0007700	DET	.0053	mg/kg	J
1994	01NOV94	09LS	S	.	.0002756	ND	.0045	mg/kg	
1994	01NOV94	10LS	S	.	.0001300	ND	.0045	mg/kg	
1994	01NOV94	11LS	S	.	.0003861	ND	.0043	mg/kg	

N = 11

--------- Site=Lake Stinky MEDIA=Soils Analyte=Acetone Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	.	2.550	ND	3.40	mg/kg	
1992	28FEB92	LS-01	S	0.080	0.080	DET	0.14	mg/kg	J
1992	28FEB92	LS-02	S	.	2.325	ND	3.10	mg/kg	
1992	28FEB92	LS-02	S	.	0.105	ND	0.14	mg/kg	
1992	28FEB92	LS-03	S	0.420	0.420	DET	0.16	mg/kg	@
1992	28FEB92	LS-03	S	.	0.105	ND	0.14	mg/kg	
1993	02MAR93	LS-05	S	0.300	0.300	DET	0.16	mg/kg	@
1993	02MAR93	LS-06	S	0.036	0.036	DET	0.14	mg/kg	J

N = 8

---------- Site=Lake Stinky MEDIA=Soils Analyte=Aldrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.001700	0.001700	DET	0.00170	mg/kg	
1992	28FEB92	LS-01	S	0.001400	0.001400	DET	0.00140	mg/kg	
1992	28FEB92	LS-02	S	0.016000	0.016000	DET	0.01600	mg/kg	
1992	28FEB92	LS-02	S	0.001400	0.001400	DET	0.00140	mg/kg	
1992	28FEB92	LS-03	S	0.016000	0.016000	DET	0.01600	mg/kg	
1992	28FEB92	LS-03	S	0.001400	0.001400	DET	0.00140	mg/kg	
1993	02MAR93	LS-05	S	0.021000	0.021000	DET	0.01100	mg/kg	X@
1993	02MAR93	LS-06	S	0.001200	0.001200	DET	0.00048	mg/kg	G@
1994	01NOV94	01LS	S	.	0.000000	ND	0.00260	mg/kg	T
1994	01NOV94	02LS	S	.	0.000001	ND	0.00260	mg/kg	T
1994	01NOV94	03LS	S	.	0.000000	ND	0.00270	mg/kg	T
1994	01NOV94	04LS	S	0.001600	0.001600	DET	0.00280	mg/kg	TJ
1994	01NOV94	05LS	S	0.000003	0.000003	DET	0.00240	mg/kg	TJ
1994	01NOV94	06LS	S	0.001000	0.001000	DET	0.00250	mg/kg	TJ
1994	01NOV94	07LS	S	.	0.000001	ND	0.00270	mg/kg	T
1994	01NOV94	08LS	S	0.000026	0.000026	DET	0.00270	mg/kg	TJ
1994	01NOV94	09LS	S	.	0.000000	ND	0.00230	mg/kg	T
1994	01NOV94	10LS	S	.	0.000002	ND	0.00230	mg/kg	T
1994	01NOV94	11LS	S	.	0.000003	ND	0.00220	mg/kg	T

N = 19

--------- Site=Lake Stinky MEDIA=Soils Analyte=Arsenic Method=SW7060 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	1.8	1.8	DET	1.00	mg/kg	@
1992	28FEB92	LS-01	S	2.2	2.2	DET	1.60	mg/kg	@
1992	28FEB92	LS-02	S	2.2	2.2	DET	0.95	mg/kg	@

--------- Site=Lake Stinky MEDIA=Soils Analyte=Arsenic Method=SW7060 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-02	S	2.0	2.0	DET	1.70	mg/kg	@
1992	28FEB92	LS-03	S	4.7	4.7	DET	2.10	mg/kg	@
1992	28FEB92	LS-03	S	2.3	2.3	DET	1.60	mg/kg	@
1993	02MAR93	LS-05	S	3.8	3.8	DET	0.38	mg/kg	
1993	02MAR93	LS-06	S	2.6	2.6	DET	0.38	mg/kg	
1994	01NOV94	01LS	S	1.7	1.7	DET	1.50	mg/kg	
1994	01NOV94	02LS	S	1.7	1.7	DET	1.50	mg/kg	
1994	01NOV94	03LS	S	1.6	1.6	DET	0.79	mg/kg	
1994	01NOV94	04LS	S	2.2	2.2	DET	1.60	mg/kg	
1994	01NOV94	05LS	S	1.9	1.9	DET	1.40	mg/kg	
1994	01NOV94	06LS	S	2.0	2.0	DET	1.50	mg/kg	
1994	01NOV94	07LS	S	2.3	2.3	DET	1.60	mg/kg	
1994	01NOV94	08LS	S	2.5	2.5	DET	1.60	mg/kg	
1994	01NOV94	09LS	S	2.7	2.7	DET	1.40	mg/kg	
1994	01NOV94	10LS	S	2.1	2.1	DET	1.30	mg/kg	
1994	01NOV94	11LS	S	2.7	2.7	DET	0.66	mg/kg	

N = 19

---------- Site=Lake Stinky MEDIA=Soils Analyte=Barium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	60.0	60.0	DET	4.90	mg/kg	
1992	28FEB92	LS-01	S	65.0	65.0	DET	4.70	mg/kg	
1992	28FEB92	LS-02	S	69.0	69.0	DET	4.90	mg/kg	
1992	28FEB92	LS-02	S	66.0	66.0	DET	4.10	mg/kg	
1992	28FEB92	LS-03	S	95.0	95.0	DET	4.60	mg/kg	
1992	28FEB92	LS-03	S	84.0	84.0	DET	4.70	mg/kg	
1993	02MAR93	LS-05	S	68.0	68.0	DET	0.90	mg/kg	
1993	02MAR93	LS-06	S	71.0	71.0	DET	0.83	mg/kg	
1994	01NOV94	01LS	S	45.9	45.9	DET	3.10	mg/kg	
1994	01NOV94	02LS	S	42.2	42.2	DET	3.00	mg/kg	
1994	01NOV94	03LS	S	51.7	51.7	DET	3.20	mg/kg	
1994	01NOV94	04LS	S	56.4	56.4	DET	3.30	mg/kg	
1994	01NOV94	05LS	S	34.4	34.4	DET	2.80	mg/kg	
1994	01NOV94	06LS	S	33.9	33.9	DET	3.00	mg/kg	
1994	01NOV94	07LS	S	57.0	57.0	DET	3.20	mg/kg	
1994	01NOV94	08LS	S	51.1	51.1	DET	3.20	mg/kg	
1994	01NOV94	09LS	S	89.7	89.7	DET	2.70	mg/kg	
1994	01NOV94	10LS	S	82.5	82.5	DET	2.70	mg/kg	
1994	01NOV94	11LS	S	53.0	53.0	DET	2.60	mg/kg	

N = 19

-------- Site=Lake Stinky MEDIA=Soils Analyte=Beryllium Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	.	0.73500	ND	0.98	mg/kg	
1992	28FEB92	LS-01	S	.	0.69750	ND	0.93	mg/kg	
1992	28FEB92	LS-02	S	.	0.73500	ND	0.98	mg/kg	
1992	28FEB92	LS-02	S	.	0.61500	ND	0.82	mg/kg	
1992	28FEB92	LS-03	S	.	0.69000	ND	0.92	mg/kg	
1992	28FEB92	LS-03	S	.	0.70500	ND	0.94	mg/kg	
1993	02MAR93	LS-05	S	0.45	0.45000	DET	0.18	mg/kg	@
1993	02MAR93	LS-06	S	0.51	0.51000	DET	0.17	mg/kg	@
1994	01NOV94	01LS	S	.	0.36665	ND	0.62	mg/kg	
1994	01NOV94	02LS	S	.	0.25457	ND	0.61	mg/kg	
1994	01NOV94	03LS	S	.	0.02111	ND	0.63	mg/kg	
1994	01NOV94	04LS	S	.	0.35262	ND	0.66	mg/kg	
1994	01NOV94	05LS	S	.	0.17778	ND	0.57	mg/kg	
1994	01NOV94	06LS	S	.	0.08719	ND	0.59	mg/kg	
1994	01NOV94	07LS	S	.	0.32946	ND	0.64	mg/kg	
1994	01NOV94	08LS	S	.	0.00002	ND	0.64	mg/kg	
1994	01NOV94	09LS	S	0.40	0.40000	DET	0.55	mg/kg	J
1994	01NOV94	10LS	S	0.48	0.48000	DET	0.54	mg/kg	J
1994	01NOV94	11LS	S	0.69	0.69000	DET	0.53	mg/kg	

N = 19

--------- Site=Lake Stinky MEDIA=Soils Analyte=Cadmium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	2.40	2.40	DET	2.40	mg/kg	
1992	28FEB92	LS-01	S	2.30	2.30	DET	2.30	mg/kg	
1992	28FEB92	LS-02	S	2.40	2.40	DET	2.40	mg/kg	
1992	28FEB92	LS-02	S	2.00	2.00	DET	2.00	mg/kg	
1992	28FEB92	LS-03	S	2.30	2.30	DET	2.30	mg/kg	
1992	28FEB92	LS-03	S	2.40	2.40	DET	2.40	mg/kg	
1993	02MAR93	LS-06	S	0.37	0.37	DET	0.42	mg/kg	@

N = 7

----- Site=Lake Stinky MEDIA=Soils Analyte=Carbon disulfide Method=SW8240 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	.	0.12750	ND	0.1700	mg/kg	
1992	28FEB92	LS-01	S	.	0.00518	ND	0.0069	mg/kg	
1992	28FEB92	LS-02	S	.	0.12000	ND	0.1600	mg/kg	
1992	28FEB92	LS-02	S	.	0.00518	ND	0.0069	mg/kg	

----- Site=Lake Stinky MEDIA=Soils Analyte=Carbon disulfide Method=SW8240 -----
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-03	S	0.014	0.01400	DET	.0081	mg/kg	@
1992	28FEB92	LS-03	S	.	0.00525	ND	.0070	mg/kg	
1993	02MAR93	LS-05	S	0.014	0.01400	DET	.0082	mg/kg	@
1993	02MAR93	LS-06	S	.	0.00360	ND	.0072	mg/kg	

N = 8

--------- Site=Lake Stinky MEDIA=Soils Analyte=Chromium Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	.	3.675	ND	4.90	mg/kg	
1992	28FEB92	LS-01	S	.	3.525	ND	4.70	mg/kg	
1992	28FEB92	LS-02	S	6.2	6.200	DET	4.90	mg/kg	@
1992	28FEB92	LS-02	S	4.5	4.500	DET	4.10	mg/kg	@
1992	28FEB92	LS-03	S	10.0	10.000	DET	4.60	mg/kg	@
1992	28FEB92	LS-03	S	7.6	7.600	DET	4.70	mg/kg	@
1993	02MAR93	LS-05	S	9.7	9.700	DET	0.90	mg/kg	
1993	02MAR93	LS-06	S	11.0	11.000	DET	0.83	mg/kg	
1994	01NOV94	01LS	S	2.8	2.800	DET	3.10	mg/kg	J
1994	01NOV94	02LS	S	2.4	2.400	DET	3.00	mg/kg	J
1994	01NOV94	03LS	S	3.5	3.500	DET	3.20	mg/kg	
1994	01NOV94	04LS	S	4.9	4.900	DET	3.30	mg/kg	
1994	01NOV94	05LS	S	2.1	2.100	DET	2.80	mg/kg	J
1994	01NOV94	06LS	S	1.7	1.700	DET	3.00	mg/kg	J
1994	01NOV94	07LS	S	4.9	4.900	DET	3.20	mg/kg	
1994	01NOV94	08LS	S	4.3	4.300	DET	3.20	mg/kg	
1994	01NOV94	09LS	S	7.5	7.500	DET	2.70	mg/kg	
1994	01NOV94	10LS	S	9.0	9.000	DET	2.70	mg/kg	
1994	01NOV94	11LS	S	12.7	12.700	DET	2.60	mg/kg	

N = 19

---------- Site=Lake Stinky MEDIA=Soils Analyte=Cobalt Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	.	3.675	ND	4.9	mg/kg	
1992	28FEB92	LS-01	S	.	3.525	ND	4.7	mg/kg	
1992	28FEB92	LS-02	S	.	3.675	ND	4.9	mg/kg	
1992	28FEB92	LS-02	S	.	3.075	ND	4.1	mg/kg	
1992	28FEB92	LS-03	S	.	3.450	ND	4.6	mg/kg	
1992	28FEB92	LS-03	S	4.9	4.900	DET	4.7	mg/kg	@

---------- Site=Lake Stinky MEDIA=Soils Analyte=Cobalt Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	02MAR93	LS-05	S	2.60	2.60	DET	0.90	mg/kg	@
1993	02MAR93	LS-06	S	3.20	3.20	DET	0.83	mg/kg	@
1994	01NOV94	01LS	S	2.00	2.00	DET	3.10	mg/kg	J
1994	01NOV94	02LS	S	2.10	2.10	DET	3.00	mg/kg	J
1994	01NOV94	03LS	S	2.20	2.20	DET	3.20	mg/kg	J
1994	01NOV94	04LS	S	2.10	2.10	DET	3.30	mg/kg	J
1994	01NOV94	05LS	S	0.95	0.95	DET	2.80	mg/kg	J
1994	01NOV94	06LS	S	1.50	1.50	DET	3.00	mg/kg	J
1994	01NOV94	07LS	S	2.30	2.30	DET	3.20	mg/kg	J
1994	01NOV94	08LS	S	2.00	2.00	DET	3.20	mg/kg	J
1994	01NOV94	09LS	S	2.80	2.80	DET	2.70	mg/kg	
1994	01NOV94	10LS	S	3.10	3.10	DET	2.70	mg/kg	
1994	01NOV94	11LS	S	6.20	6.20	DET	2.60	mg/kg	

N = 19

---------- Site=Lake Stinky MEDIA=Soils Analyte=Copper Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	01NOV94	01LS	S	4.8	4.8	DET	6.2	mg/kg	J
1994	01NOV94	02LS	S	3.7	3.7	DET	6.1	mg/kg	J
1994	01NOV94	03LS	S	5.0	5.0	DET	6.3	mg/kg	J
1994	01NOV94	04LS	S	6.5	6.5	DET	6.6	mg/kg	J
1994	01NOV94	05LS	S	3.6	3.6	DET	5.7	mg/kg	J
1994	01NOV94	06LS	S	4.9	4.9	DET	5.9	mg/kg	J
1994	01NOV94	07LS	S	5.3	5.3	DET	6.4	mg/kg	J
1994	01NOV94	08LS	S	8.8	8.8	DET	6.4	mg/kg	
1994	01NOV94	09LS	S	5.5	5.5	DET	5.5	mg/kg	
1994	01NOV94	10LS	S	7.8	7.8	DET	5.4	mg/kg	
1994	01NOV94	11LS	S	9.0	9.0	DET	5.3	mg/kg	

N = 11

--------- Site=Lake Stinky MEDIA=Soils Analyte=Cyanide Method=SW9012 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.37	0.37	DET	0.37	mg/kg	
1992	28FEB92	LS-01	S	6.10	6.10	DET	0.33	mg/kg	
1992	28FEB92	LS-02	S	8.30	8.30	DET	0.37	mg/kg	
1992	28FEB92	LS-02	S	11.00	11.00	DET	0.34	mg/kg	
1992	28FEB92	LS-03	S	0.54	0.54	DET	0.40	mg/kg	@

--------- Site=Lake Stinky MEDIA=Soils Analyte=Cyanide Method=SW9012 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-03	S	3.3	3.3	DET	0.33	mg/kg	

N = 6

------ Site=Lake Stinky MEDIA=Soils Analyte=Cyclohexenone Method=SW8270 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	1	1	DET	.	mg/kg	

N = 1

--------- Site=Lake Stinky MEDIA=Soils Analyte=Dieldrin Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	01NOV94	01LS	S	.	.0000310	ND	.0051	mg/kg	
1994	01NOV94	02LS	S	.	.0000460	ND	.0050	mg/kg	
1994	01NOV94	03LS	S	.	.0000059	ND	.0052	mg/kg	
1994	01NOV94	04LS	S	.004200	.0042000	DET	.0054	mg/kg	J
1994	01NOV94	05LS	S	.000180	.0001800	DET	.0047	mg/kg	J
1994	01NOV94	06LS	S	.001700	.0017000	DET	.0049	mg/kg	J
1994	01NOV94	07LS	S	.000046	.0000460	DET	.0053	mg/kg	J
1994	01NOV94	08LS	S	.000460	.0004600	DET	.0053	mg/kg	J
1994	01NOV94	09LS	S	.	.0000327	ND	.0045	mg/kg	
1994	01NOV94	10LS	S	.	.0000093	ND	.0045	mg/kg	
1994	01NOV94	11LS	S	.	.0000005	ND	.0043	mg/kg	

N = 11

---------- Site=Lake Stinky MEDIA=Soils Analyte=Endrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.0017	0.0017	DET	0.0017	mg/kg	
1992	28FEB92	LS-01	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	28FEB92	LS-02	S	0.0160	0.0160	DET	0.0160	mg/kg	
1992	28FEB92	LS-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	28FEB92	LS-03	S	0.0160	0.0160	DET	0.0160	mg/kg	
1992	28FEB92	LS-03	S	0.0014	0.0014	DET	0.0014	mg/kg	
1993	02MAR93	LS-05	S	0.0067	0.0067	DET	0.0110	mg/kg	JX

---------- Site=Lake Stinky MEDIA=Soils Analyte=Endrin Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	01NOV94	01LS	S	.	.0000058	ND	.0051	mg/kg	
1994	01NOV94	02LS	S	.	.0000151	ND	.0050	mg/kg	
1994	01NOV94	03LS	S	.	.0000274	ND	.0052	mg/kg	
1994	01NOV94	04LS	S	.00450	.0045000	DET	.0054	mg/kg	J
1994	01NOV94	05LS	S	.00022	.0002200	DET	.0047	mg/kg	J
1994	01NOV94	06LS	S	.00190	.0019000	DET	.0049	mg/kg	J
1994	01NOV94	07LS	S	.	.0000309	ND	.0053	mg/kg	
1994	01NOV94	08LS	S	.	.0001983	ND	.0053	mg/kg	
1994	01NOV94	09LS	S	.	.0000359	ND	.0045	mg/kg	
1994	01NOV94	10LS	S	.	.0001784	ND	.0045	mg/kg	
1994	01NOV94	11LS	S	.	.0001612	ND	.0043	mg/kg	

N = 18

----- Site=Lake Stinky MEDIA=Soils Analyte=Endrin aldehyde Method=SW8080 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.0034	0.00340	DET	0.00340	mg/kg	
1992	28FEB92	LS-01	S	0.0027	0.00270	DET	0.00270	mg/kg	
1992	28FEB92	LS-02	S	0.0310	0.03100	DET	0.03100	mg/kg	
1992	28FEB92	LS-02	S	0.0015	0.00150	DET	0.00280	mg/kg	CJ
1992	28FEB92	LS-03	S	0.0330	0.03300	DET	0.03300	mg/kg	
1992	28FEB92	LS-03	S	0.0028	0.00280	DET	0.00280	mg/kg	
1993	02MAR93	LS-05	S	.	0.01100	ND	0.02200	mg/kg	
1993	02MAR93	LS-06	S	.	0.00048	ND	0.00096	mg/kg	

N = 8

-------- Site=Lake Stinky MEDIA=Soils Analyte=Heptachlor Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	01NOV94	01LS	S	.	.0000397	ND	.0026	mg/kg	
1994	01NOV94	02LS	S	.	.0000050	ND	.0026	mg/kg	
1994	01NOV94	03LS	S	.	.0000141	ND	.0027	mg/kg	
1994	01NOV94	04LS	S	.002100	.0021000	DET	.0028	mg/kg	VJ
1994	01NOV94	05LS	S	.000084	.0000840	DET	.0024	mg/kg	VJ
1994	01NOV94	06LS	S	.000950	.0009500	DET	.0025	mg/kg	VJ
1994	01NOV94	07LS	S	.	.0000247	ND	.0027	mg/kg	V
1994	01NOV94	08LS	S	.000130	.0001300	DET	.0027	mg/kg	VJ
1994	01NOV94	09LS	S	.	.0000106	ND	.0023	mg/kg	
1994	01NOV94	10LS	S	.	.0000457	ND	.0023	mg/kg	

-------- Site=Lake Stinky MEDIA=Soils Analyte=Heptachlor Method=SW8080 --------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	01NOV94	11LS	S	.	.000045155	ND	.0022	mg/kg	

N = 11

---- Site=Lake Stinky MEDIA=Soils Analyte=Heptachlor epoxide Method=SW8080 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.0017	0.0017	DET	0.00170	mg/kg	
1992	28FEB92	LS-01	S	0.0014	0.0014	DET	0.00140	mg/kg	
1992	28FEB92	LS-02	S	0.0160	0.0160	DET	0.01600	mg/kg	
1992	28FEB92	LS-02	S	0.0014	0.0014	DET	0.00140	mg/kg	
1992	28FEB92	LS-03	S	0.0160	0.0160	DET	0.01600	mg/kg	
1992	28FEB92	LS-03	S	0.0014	0.0014	DET	0.00140	mg/kg	
1993	02MAR93	LS-05	S	6.3000	6.3000	DET	0.01100	mg/kg	G
1993	02MAR93	LS-06	S	0.1100	0.1100	DET	0.00048	mg/kg	X

N = 8

--------- Site=Lake Stinky MEDIA=Soils Analyte=Isodrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.0120	0.01200	DET	0.01700	mg/kg	JXD
1992	28FEB92	LS-01	S	0.0014	0.00140	DET	0.00140	mg/kg	
1992	28FEB92	LS-02	S	0.0160	0.01600	DET	0.01600	mg/kg	
1992	28FEB92	LS-02	S	0.0014	0.00140	DET	0.00140	mg/kg	
1992	28FEB92	LS-03	S	0.0160	0.01600	DET	0.01600	mg/kg	
1992	28FEB92	LS-03	S	0.0014	0.00140	DET	0.00140	mg/kg	
1993	02MAR93	LS-05	S	.	0.00550	ND	0.01100	mg/kg	
1993	02MAR93	LS-06	S	.	0.00024	ND	0.00048	mg/kg	

N = 8

---------- Site=Lake Stinky MEDIA=Soils Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	3.1	3.1	DET	0.39	mg/kg	
1992	28FEB92	LS-01	S	2.1	2.1	DET	0.30	mg/kg	
1992	28FEB92	LS-02	S	2.3	2.3	DET	0.36	mg/kg	

---------- Site=Lake Stinky MEDIA=Soils Analyte=Lead Method=SW7421 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-02	S	3.1	3.1	DET	0.33	mg/kg	
1992	28FEB92	LS-03	S	6.1	6.1	DET	0.39	mg/kg	
1992	28FEB92	LS-03	S	2.8	2.8	DET	0.30	mg/kg	
1993	02MAR93	LS-05	S	3.1	3.1	DET	0.28	mg/kg	
1993	02MAR93	LS-06	S	3.0	3.0	DET	0.28	mg/kg	

N = 8

--- Site=Lake Stinky MEDIA=Soils Analyte=Methyl ethyl ketone Method=SW8240 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	3.400	3.400	DET	3.40	mg/kg	
1992	28FEB92	LS-01	S	0.013	0.013	DET	0.14	mg/kg	J
1992	28FEB92	LS-02	S	3.100	3.100	DET	3.10	mg/kg	
1992	28FEB92	LS-02	S	0.140	0.140	DET	0.14	mg/kg	
1992	28FEB92	LS-03	S	0.033	0.033	DET	0.16	mg/kg	J
1992	28FEB92	LS-03	S	0.140	0.140	DET	0.14	mg/kg	
1993	02MAR93	LS-05	S	.	0.080	ND	0.16	mg/kg	
1993	02MAR93	LS-06	S	.	0.070	ND	0.14	mg/kg	

N = 8

---- Site=Lake Stinky MEDIA=Soils Analyte=Methylene chloride Method=SW8240 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	.	0.12750	ND	0.1700	mg/kg	
1992	28FEB92	LS-01	S	.0011	0.00110	DET	0.0069	mg/kg	J
1992	28FEB92	LS-02	S	.	0.12000	ND	0.1600	mg/kg	
1992	28FEB92	LS-02	S	.0059	0.00590	DET	0.0069	mg/kg	J
1992	28FEB92	LS-03	S	.	0.00608	ND	0.0081	mg/kg	
1992	28FEB92	LS-03	S	.0092	0.00920	DET	0.0070	mg/kg	@
1993	02MAR93	LS-05	S	.	0.00410	ND	0.0082	mg/kg	
1993	02MAR93	LS-06	S	.0016	0.00160	DET	0.0072	mg/kg	J

N = 8

---------- Site=Lake Stinky MEDIA=Soils Analyte=Nickel Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	.	7.350	ND	9.8	mg/kg	
1992	28FEB92	LS-01	S	.	6.975	ND	9.3	mg/kg	
1992	28FEB92	LS-02	S	.	7.350	ND	9.8	mg/kg	
1992	28FEB92	LS-02	S	.	6.150	ND	8.2	mg/kg	
1992	28FEB92	LS-03	S	.	6.900	ND	9.2	mg/kg	
1992	28FEB92	LS-03	S	.	7.050	ND	9.4	mg/kg	
1993	02MAR93	LS-06	S	6.8	6.800	DET	1.7	mg/kg	@
1994	01NOV94	01LS	S	3.9	3.900	DET	12.4	mg/kg	J
1994	01NOV94	02LS	S	1.8	1.800	DET	12.1	mg/kg	J
1994	01NOV94	03LS	S	4.7	4.700	DET	12.7	mg/kg	J
1994	01NOV94	04LS	S	6.0	6.000	DET	13.2	mg/kg	J
1994	01NOV94	05LS	S	2.2	2.200	DET	11.3	mg/kg	J
1994	01NOV94	06LS	S	2.3	2.300	DET	11.9	mg/kg	J
1994	01NOV94	07LS	S	4.5	4.500	DET	12.8	mg/kg	J
1994	01NOV94	08LS	S	5.6	5.600	DET	12.8	mg/kg	J
1994	01NOV94	09LS	S	7.1	7.100	DET	11.0	mg/kg	J
1994	01NOV94	10LS	S	8.3	8.300	DET	10.8	mg/kg	J
1994	01NOV94	11LS	S	14.5	14.500	DET	10.5	mg/kg	

N = 18

-------- Site=Lake Stinky MEDIA=Soils Analyte=Parathion Method=SW8140 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.110	0.110	DET	0.110	mg/kg	
1992	28FEB92	LS-01	S	0.100	0.100	DET	0.100	mg/kg	
1992	28FEB92	LS-02	S	0.064	0.064	DET	0.230	mg/kg	JX
1992	28FEB92	LS-02	S	0.100	0.100	DET	0.100	mg/kg	
1992	28FEB92	LS-03	S	0.240	0.240	DET	0.240	mg/kg	
1992	28FEB92	LS-03	S	0.100	0.100	DET	0.100	mg/kg	
1993	02MAR93	LS-05	S	.	0.060	ND	0.120	mg/kg	
1993	02MAR93	LS-06	S	.	0.011	ND	0.022	mg/kg	

N = 8

--------- Site=Lake Stinky MEDIA=Soils Analyte=Selenium Method=SW7740 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	.	0.4875	ND	0.65	mg/kg	
1992	28FEB92	LS-01	S	.	0.3675	ND	0.49	mg/kg	
1992	28FEB92	LS-02	S	.	0.4425	ND	0.59	mg/kg	
1992	28FEB92	LS-02	S	.	0.4125	ND	0.55	mg/kg	

--------- Site=Lake Stinky MEDIA=Soils Analyte=Selenium Method=SW7740 ---------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-03	S	.	0.49500	ND	0.66	mg/kg	
1992	28FEB92	LS-03	S	.	0.37500	ND	0.50	mg/kg	
1993	02MAR93	LS-06	S	0.60	0.60000	DET	0.94	mg/kg	@
1994	01NOV94	01LS	S	0.45	0.45000	DET	0.77	mg/kg	J
1994	01NOV94	02LS	S	.	0.13780	ND	3.00	mg/kg	
1994	01NOV94	03LS	S	0.17	0.17000	DET	1.60	mg/kg	J
1994	01NOV94	04LS	S	0.43	0.43000	DET	3.30	mg/kg	J
1994	01NOV94	05LS	S	.	0.14462	ND	1.40	mg/kg	
1994	01NOV94	06LS	S	.	0.03236	ND	3.00	mg/kg	
1994	01NOV94	07LS	S	.	0.10445	ND	3.20	mg/kg	
1994	01NOV94	08LS	S	.	0.09119	ND	1.60	mg/kg	
1994	01NOV94	09LS	S	.	0.12750	ND	1.40	mg/kg	
1994	01NOV94	10LS	S	.	0.00726	ND	2.70	mg/kg	
1994	01NOV94	11LS	S	.	0.02335	ND	1.30	mg/kg	

N = 18

--------- Site=Lake Stinky MEDIA=Soils Analyte=Sulfide Method=SW9030 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	150	150	DET	42	mg/kg	@
1992	28FEB92	LS-01	S	32	32	DET	32	mg/kg	
1992	28FEB92	LS-02	S	420	420	DET	39	mg/kg	
1992	28FEB92	LS-02	S	35	35	DET	35	mg/kg	
1992	28FEB92	LS-03	S	540	540	DET	39	mg/kg	
1992	28FEB92	LS-03	S	34	34	DET	34	mg/kg	
1993	02MAR93	LS-05	S	310	310	DET	41	mg/kg	

N = 7

--------- Site=Lake Stinky MEDIA=Soils Analyte=Toluene Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.17000	0.17000	DET	0.1700	mg/kg	
1992	28FEB92	LS-01	S	0.00140	0.00140	DET	0.0069	mg/kg	J
1992	28FEB92	LS-02	S	0.16000	0.16000	DET	0.1600	mg/kg	
1992	28FEB92	LS-02	S	0.00042	0.00042	DET	0.0069	mg/kg	J
1992	28FEB92	LS-03	S	0.00039	0.00039	DET	0.0081	mg/kg	J
1992	28FEB92	LS-03	S	0.00150	0.00150	DET	0.0070	mg/kg	J
1993	02MAR93	LS-05	S	.	0.00410	ND	0.0082	mg/kg	
1993	02MAR93	LS-06	S	.	0.00360	ND	0.0072	mg/kg	

N = 8

----- Site=Lake Stinky MEDIA=Soils Analyte=Trichloroethene Method=SW8240 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.1700	0.1700	DET	0.1700	mg/kg	
1992	28FEB92	LS-01	S	0.0069	0.0069	DET	0.0069	mg/kg	
1992	28FEB92	LS-02	S	0.1600	0.1600	DET	0.1600	mg/kg	
1992	28FEB92	LS-02	S	0.0069	0.0069	DET	0.0069	mg/kg	
1992	28FEB92	LS-03	S	0.0081	0.0081	DET	0.0081	mg/kg	
1992	28FEB92	LS-03	S	0.0070	0.0070	DET	0.0070	mg/kg	
1993	02MAR93	LS-05	S	.	0.0041	ND	0.0082	mg/kg	
1993	02MAR93	LS-06	S	0.0021	0.0021	DET	0.0072	mg/kg	J

N = 8

--------- Site=Lake Stinky MEDIA=Soils Analyte=Vanadium Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	11.0	11.000	DET	9.8	mg/kg	@
1992	28FEB92	LS-01	S	.	6.975	ND	9.3	mg/kg	
1992	28FEB92	LS-02	S	13.0	13.000	DET	9.8	mg/kg	@
1992	28FEB92	LS-02	S	11.0	11.000	DET	8.2	mg/kg	@
1992	28FEB92	LS-03	S	20.0	20.000	DET	9.2	mg/kg	@
1992	28FEB92	LS-03	S	17.0	17.000	DET	9.4	mg/kg	@
1993	02MAR93	LS-05	S	16.0	16.000	DET	1.8	mg/kg	
1993	02MAR93	LS-06	S	17.0	17.000	DET	1.7	mg/kg	
1994	01NOV94	01LS	S	6.9	6.900	DET	3.1	mg/kg	
1994	01NOV94	02LS	S	6.1	6.100	DET	3.0	mg/kg	
1994	01NOV94	03LS	S	8.4	8.400	DET	3.2	mg/kg	
1994	01NOV94	04LS	S	9.6	9.600	DET	3.3	mg/kg	
1994	01NOV94	05LS	S	4.8	4.800	DET	2.8	mg/kg	
1994	01NOV94	06LS	S	5.0	5.000	DET	3.0	mg/kg	
1994	01NOV94	07LS	S	10.3	10.300	DET	3.2	mg/kg	
1994	01NOV94	08LS	S	9.0	9.000	DET	3.2	mg/kg	
1994	01NOV94	09LS	S	13.4	13.400	DET	2.7	mg/kg	
1994	01NOV94	10LS	S	15.8	15.800	DET	2.7	mg/kg	
1994	01NOV94	11LS	S	30.5	30.500	DET	2.6	mg/kg	

N = 19

--------- Site=Lake Stinky MEDIA=Soils Analyte=Xylenes Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.1700	0.1700	DET	0.1700	mg/kg	
1992	28FEB92	LS-01	S	0.0069	0.0069	DET	0.0069	mg/kg	
1992	28FEB92	LS-02	S	0.1600	0.1600	DET	0.1600	mg/kg	

--------- Site=Lake Stinky MEDIA=Soils Analyte=Xylenes Method=SW8240 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-02	S	.00690	.00690	DET	.0069	mg/kg	
1992	28FEB92	LS-03	S	.00810	.00810	DET	.0081	mg/kg	
1992	28FEB92	LS-03	S	.00700	.00700	DET	.0070	mg/kg	
1993	02MAR93	LS-05	S	.00110	.00110	DET	.0082	mg/kg	J
1993	02MAR93	LS-06	S	.00081	.00081	DET	.0072	mg/kg	J

N = 8

---------- Site=Lake Stinky MEDIA=Soils Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	13.0	13.0	DET	9.8	mg/kg	@
1992	28FEB92	LS-01	S	13.0	13.0	DET	9.3	mg/kg	@
1992	28FEB92	LS-02	S	19.0	19.0	DET	9.8	mg/kg	@
1992	28FEB92	LS-02	S	15.0	15.0	DET	8.2	mg/kg	@
1992	28FEB92	LS-03	S	34.0	34.0	DET	9.2	mg/kg	@
1992	28FEB92	LS-03	S	25.0	25.0	DET	9.4	mg/kg	@
1993	02MAR93	LS-05	S	40.0	40.0	DET	1.8	mg/kg	
1993	02MAR93	LS-06	S	26.0	26.0	DET	1.7	mg/kg	
1994	01NOV94	01LS	S	15.4	15.4	DET	6.2	mg/kg	
1994	01NOV94	02LS	S	11.0	11.0	DET	6.1	mg/kg	
1994	01NOV94	03LS	S	14.5	14.5	DET	6.3	mg/kg	
1994	01NOV94	04LS	S	19.3	19.3	DET	6.6	mg/kg	
1994	01NOV94	05LS	S	10.5	10.5	DET	5.7	mg/kg	
1994	01NOV94	06LS	S	13.0	13.0	DET	5.9	mg/kg	
1994	01NOV94	07LS	S	20.3	20.3	DET	6.4	mg/kg	
1994	01NOV94	08LS	S	24.2	24.2	DET	6.4	mg/kg	
1994	01NOV94	09LS	S	23.0	23.0	DET	5.5	mg/kg	
1994	01NOV94	10LS	S	29.4	29.4	DET	5.4	mg/kg	
1994	01NOV94	11LS	S	34.9	34.9	DET	5.3	mg/kg	

N = 19

-------- Site=Lake Stinky MEDIA=Soils Analyte=alpha-BHC Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.0017	0.0017	DET	0.0017	mg/kg	
1992	28FEB92	LS-01	S	0.0012	0.0012	DET	0.0014	mg/kg	JC
1992	28FEB92	LS-02	S	0.0160	0.0160	DET	0.0160	mg/kg	
1992	28FEB92	LS-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	28FEB92	LS-03	S	0.0160	0.0160	DET	0.0160	mg/kg	

-------- Site=Lake Stinky MEDIA=Soils Analyte=alpha-BHC Method=SW8080 ---------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-03	S	.001400	.0014000	DET	0.00140	mg/kg	
1993	02MAR93	LS-05	S	.	.0055000	ND	0.01100	mg/kg	
1993	02MAR93	LS-06	S	.000840	.0008400	DET	0.00048	mg/kg	@
1994	01NOV94	01LS	S	.000150	.0001500	DET	0.00260	mg/kg	J
1994	01NOV94	02LS	S	.000280	.0002800	DET	0.00260	mg/kg	VJ
1994	01NOV94	03LS	S	.000160	.0001600	DET	0.00270	mg/kg	J
1994	01NOV94	04LS	S	.000037	.0000370	DET	0.00280	mg/kg	J
1994	01NOV94	05LS	S	.000057	.0000570	DET	0.00240	mg/kg	J
1994	01NOV94	06LS	S	.000050	.0000500	DET	0.00250	mg/kg	J
1994	01NOV94	07LS	S	.	.0000193	ND	0.00270	mg/kg	
1994	01NOV94	08LS	S	.000170	.0001700	DET	0.00270	mg/kg	VJ
1994	01NOV94	09LS	S	.000270	.0002700	DET	0.00230	mg/kg	J
1994	01NOV94	10LS	S	.000310	.0003100	DET	0.00230	mg/kg	J
1994	01NOV94	11LS	S	.	.0000112	ND	0.00220	mg/kg	

N = 19

--------- Site=Lake Stinky MEDIA=Soils Analyte=beta-BHC Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FE892	LS-01	S	0.0017	0.0017	DET	0.00170	mg/kg	
1992	28FEB92	LS-01	S	0.0014	0.0014	DET	0.00140	mg/kg	
1992	28FEB92	LS-02	S	0.0160	0.0160	DET	0.01600	mg/kg	
1992	28FEB92	LS-02	S	0.0014	0.0014	DET	0.00140	mg/kg	
1992	28FEB92	LS-03	S	0.0160	0.0160	DET	0.01600	mg/kg	
1992	28FEB92	LS-03	S	0.0014	0.0014	DET	0.00140	mg/kg	
1993	02MAR93	LS-05	S	.	0.0055	ND	0.01100	mg/kg	
1993	02MAR93	LS-06	S	0.0067	0.0067	DET	0.00048	mg/kg	G

N = 8

Site=Lake Stinky MEDIA=Soils Analyte=bis(2-Ethylhexyl)phthalate Method=SW8270

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	3.900	3.900	DET	1.70	mg/kg	@
1992	28FEB92	LS-01	S	0.078	0.078	DET	1.40	mg/kg	J
1992	28FEB92	LS-02	S	.	1.050	ND	1.40	mg/kg	
1992	28FEB92	LS-02	S	.	1.050	ND	1.40	mg/kg	
1992	28FEB92	LS-03	S	0.150	0.150	DET	1.60	mg/kg	J
1992	28FEB92	LS-03	S	0.062	0.062	DET	1.40	mg/kg	J
1993	02MAR93	LS-05	S	.	0.275	ND	0.55	mg/kg	

Site=Lake Stinky MEDIA=Soils Analyte=bis(2-Ethylhexyl)phthalate Method=SW8270
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	02MAR93	LS-06	S	.	0.24	ND	0.48	mg/kg	

N = 8

-------- Site=Lake Stinky MEDIA=Soils Analyte=delta-BHC Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.75000	0.75000	DET	0.00170	mg/kg	X
1992	28FEB92	LS-01	S	0.00140	0.00140	DET	0.00140	mg/kg	
1992	28FEB92	LS-02	S	2.90000	2.90000	DET	0.01600	mg/kg	X
1992	28FEB92	LS-02	S	0.00140	0.00140	DET	0.00140	mg/kg	
1992	28FEB92	LS-03	S	3.40000	3.40000	DET	0.01600	mg/kg	X
1992	28FEB92	LS-03	S	0.00140	0.00140	DET	0.00140	mg/kg	
1993	02MAR93	LS-05	S	.	0.00550	ND	0.01100	mg/kg	
1993	02MAR93	LS-06	S	0.02000	0.02000	DET	0.00048	mg/kg	X
1994	01NOV94	01LS	S	0.00014	0.00014	DET	0.00260	mg/kg	J
1994	01NOV94	02LS	S	.	0.00013	ND	0.00260	mg/kg	
1994	01NOV94	03LS	S	.	0.00004	ND	0.00270	mg/kg	
1994	01NOV94	04LS	S	.	0.00006	ND	0.00280	mg/kg	
1994	01NOV94	05LS	S	.	0.00005	ND	0.00240	mg/kg	
1994	01NOV94	06LS	S	.	0.00002	ND	0.00250	mg/kg	
1994	01NOV94	07LS	S	.	0.00011	ND	0.00270	mg/kg	
1994	01NOV94	08LS	S	.	0.00000	ND	0.00270	mg/kg	
1994	01NOV94	09LS	S	.	0.00007	ND	0.00230	mg/kg	
1994	01NOV94	10LS	S	.	0.00004	ND	0.00230	mg/kg	
1994	01NOV94	11LS	S	.	0.00006	ND	0.00220	mg/kg	V

N = 19

-------- Site=Lake Stinky MEDIA=Soils Analyte=gamma-BHC Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	28FEB92	LS-01	S	0.0029	0.002900	DET	0.00170	mg/kg	X@
1992	28FEB92	LS-01	S	0.0011	0.001100	DET	0.00140	mg/kg	J
1992	28FEB92	LS-02	S	0.0350	0.035000	DET	0.01600	mg/kg	C@
1992	28FEB92	LS-02	S	0.0011	0.001100	DET	0.00140	mg/kg	CJ
1992	28FEB92	LS-03	S	0.0260	0.026000	DET	0.01600	mg/kg	C@
1992	28FEB92	LS-03	S	0.0011	0.001100	DET	0.00140	mg/kg	JC
1993	02MAR93	LS-05	S	0.0091	0.009100	DET	0.01100	mg/kg	J
1993	02MAR93	LS-06	S	0.0057	0.005700	DET	0.00048	mg/kg	G
1994	01NOV94	01LS	S	.	0.000015	ND	0.00260	mg/kg	

-------- Site=Lake Stinky MEDIA=Soils Analyte=gamma-BHC Method=SW8080 ---------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	01NOV94	02LS	S	.	.0000252	ND	.0026	mg/kg	
1994	01NOV94	03LS	S	.	.0000266	ND	.0027	mg/kg	
1994	01NOV94	04LS	S	.001700	.0017000	DET	.0028	mg/kg	J
1994	01NOV94	05LS	S	.000120	.0001200	DET	.0024	mg/kg	J
1994	01NOV94	06LS	S	.000710	.0007100	DET	.0025	mg/kg	J
1994	01NOV94	07LS	S	.000033	.0000330	DET	.0027	mg/kg	J
1994	01NOV94	08LS	S	.000150	.0001500	DET	.0027	mg/kg	J
1994	01NOV94	09LS	S	.	.0000244	ND	.0023	mg/kg	
1994	01NOV94	10LS	S	.	.0000030	ND	.0023	mg/kg	
1994	01NOV94	11LS	S	.	.0000011	ND	.0022	mg/kg	

N = 19

----- Site=Lake Stinky MEDIA=Surface Water Analyte=4,4'-DDD Method=SW8080 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	02MAR93	LS-01	L	.000043	.00004300	DET	.0000950	mg/L	JX
1993	03MAR93	LS-02	L	.	.00000475	ND	.0000095	mg/L	

N = 2

------ Site=Lake Stinky MEDIA=Surface Water Analyte=Aldrin Method=SW8080 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	02MAR93	LS-01	L	.000025	.00002500	DET	.0000950	mg/L	JX
1993	03MAR93	LS-02	L	.	.00000475	ND	.0000095	mg/L	

N = 2

----- Site=Lake Stinky MEDIA=Surface Water Analyte=Dieldrin Method=SW8080 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	03MAR93	LS-02	L	.000011	.000011	DET	.0000095	mg/L	X@

N = 1

--- Site=Lake Stinky MEDIA=Surface Water Analyte=Endosulfan I Method=SW8080 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	02MAR93	LS-01	L	.000064	.00006400	DET	.0000950	mg/L	JX
1993	03MAR93	LS-02	L	.	.00000475	ND	.0000095	mg/L	

N = 2

- Site=Lake Stinky MEDIA=Surface Water Analyte=Endrin aldehyde Method=SW8080 --

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	02MAR93	LS-01	L	.000049	.0000490	DET	.000190	mg/L	JX
1993	03MAR93	LS-02	L	.	.0000095	ND	.000019	mg/L	

N = 2

Site=Lake Stinky MEDIA=Surface Water Analyte=Hardness, as CaCO3 Method=E130.2

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	02MAR93	LS-01	L	5650	5650	DET	250	mg/L	
1993	03MAR93	LS-02	L	5400	5400	DET	250	mg/L	

N = 2

Site=Lake Stinky MEDIA=Surface Water Analyte=Heptachlor epoxide Method=SW8080

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	02MAR93	LS-01	L	.000018	.00001800	DET	.0000950	mg/L	J
1993	03MAR93	LS-02	L	.	.00000475	ND	.0000095	mg/L	

N = 2

----- Site=Lake Stinky MEDIA=Surface Water Analyte=Isodrin Method=SW8080 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	02MAR93	LS-01	L	.000054	.00005400	DET	.0000950	mg/L	JX
1993	03MAR93	LS-02	L	.	.00000475	ND	.0000095	mg/L	

N = 2

---- Site=Lake Stinky MEDIA=Surface Water Analyte=alpha-BHC Method=SW8080 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	02MAR93	LS-01	L	.00010	.00010	DET	.0000950	mg/L	X@
1993	03MAR93	LS-02	L	.00001	.00001	DET	.0000095	mg/L	@

N = 2

---- Site=Lake Stinky MEDIA=Surface Water Analyte=gamma-BHC Method=SW8080 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	03MAR93	LS-02	L	.0000098	.0000098	DET	.0000095	mg/L	X@

N = 1

-------- Site=Pond A MEDIA=Sludges Analyte=Aroclor-1254 Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	07MAR95	01A	S	0.3	0.3	DET	0.086	mg/kg	
1995	07MAR95	02A	S	1.6	1.6	DET	0.700	mg/kg	
1995	07MAR95	03A	S	1.2	1.2	DET	0.410	mg/kg	
1995	07MAR95	04A	S	7.1	7.1	DET	2.000	mg/kg	
1995	07MAR95	05A	S	2.8	2.8	DET	1.100	mg/kg	
1995	07MAR95	06A	S	3.2	3.2	DET	1.800	mg/kg	

N = 6

------ Site=Pond A MEDIA=Sludges Analyte=Sulfide, Reactive Method=SW9030 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	07MAR95	01A	S	3.9	3.9	DET	1.3	mg/kg	
1995	07MAR95	02A	S	5.8	5.8	DET	2.6	mg/kg	
1995	07MAR95	03A	S	4.7	4.7	DET	1.2	mg/kg	
1995	07MAR95	04A	S	2.0	2.0	DET	1.5	mg/kg	
1995	07MAR95	05A	S	48.3	48.3	DET	3.4	mg/kg	
1995	07MAR95	06A	S	19.6	19.6	DET	2.8	mg/kg	

N = 6

------- Site=Pond A MEDIA=Sludges Analyte=Sulfide, Total Method=E376.2 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	07MAR95	01A	S	2.6	2.6	DET	1.3	mg/kg	
1995	07MAR95	02A	S	20.0	20.0	DET	2.6	mg/kg	
1995	07MAR95	03A	S	2.7	2.7	DET	1.2	mg/kg	
1995	07MAR95	04A	S	16.6	16.6	DET	1.5	mg/kg	
1995	07MAR95	05A	S	33.6	33.6	DET	3.4	mg/kg	
1995	07MAR95	06A	S	6.2	6.2	DET	2.8	mg/kg	

N = 6

-------- Site=Pond B MEDIA=Sludges Analyte=Aroclor-1254 Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	07MAR95	01B	S	2.400	2.400	DET	1.600	mg/kg	
1995	07MAR95	02B	S	5.300	5.300	DET	2.100	mg/kg	
1995	07MAR95	03B	S	1.300	1.300	DET	0.780	mg/kg	
1995	07MAR95	04B	S	1.100	1.100	DET	1.000	mg/kg	
1995	07MAR95	05B	S	0.062	0.062	DET	0.055	mg/kg	
1995	07MAR95	06B	S	3.000	3.000	DET	2.200	mg/kg	

N = 6

------ Site=Pond B MEDIA=Sludges Analyte=Sulfide, Reactive Method=SW9030 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	07MAR95	01B	S	8.0	8.0000	DET	2.50	mg/kg	
1995	07MAR95	02B	S	5.6	5.6000	DET	3.10	mg/kg	
1995	07MAR95	03B	S	.	0.9979	ND	1.20	mg/kg	
1995	07MAR95	04B	S	.	2.0308	ND	3.00	mg/kg	
1995	07MAR95	05B	S	.	0.2717	ND	0.83	mg/kg	
1995	07MAR95	06B	S	77.7	77.7000	DET	6.80	mg/kg	

N = 6

------- Site=Pond B MEDIA=Sludges Analyte=Sulfide, Total Method=E376.2 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	07MAR95	01B	S	5.0	5.00000	DET	2.5	mg/kg	
1995	07MAR95	02B	S	3.3	3.30000	DET	3.1	mg/kg	
1995	07MAR95	03B	S	.	0.17324	ND	1.2	mg/kg	

------- Site=Pond B MEDIA=Sludges Analyte=Sulfide, Total Method=E376.2 --------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	07MAR95	04B	S	.	1.4745	ND	3.00	mg/kg	
1995	07MAR95	05B	S	.	0.6615	ND	0.83	mg/kg	
1995	07MAR95	06B	S	11.6	11.6000	DET	3.40	mg/kg	

N = 6

---------- Site=Pond C MEDIA=Sludges Analyte=2,4,5-T Method=SW8150 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	.	0.016	ND	0.032	mg/kg	
1990	29MAR90	C-2	S	.	0.012	ND	0.024	mg/kg	
1990	25MAR90	C-3	S	.	0.015	ND	0.030	mg/kg	
1990	29MAR90	C-4	S	.	0.015	ND	0.030	mg/kg	
1990	29MAR90	C-5	S	.	0.032	ND	0.064	mg/kg	
1990	25MAR90	C-6	S	.	0.014	ND	0.028	mg/kg	
1992	18FEB92	C-01	S	0.22	0.220	DET	0.220	mg/kg	
1992	18FEB92	C-02	S	0.15	0.150	DET	0.150	mg/kg	
1992	19FEB92	C-03	S	0.15	0.150	DET	0.150	mg/kg	
1992	19FEB92	C-04	S	0.17	0.170	DET	0.170	mg/kg	
1992	19FEB92	C-05	S	0.30	0.300	DET	0.250	mg/kg	X@
1992	20FEB92	C-06	S	0.11	0.110	DET	0.110	mg/kg	

N = 12

----- Site=Pond C MEDIA=Sludges Analyte=2-Methylnaphthalene Method=SW8270 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	1.1	1.10	DET	.	mg/kg	@
1990	29MAR90	C-2	S	.	0.18	ND	0.36	mg/kg	
1990	25MAR90	C-3	S	.	0.21	ND	0.42	mg/kg	
1990	29MAR90	C-4	S	.	0.20	ND	0.40	mg/kg	
1990	29MAR90	C-5	S	14.0	14.00	DET	.	mg/kg	@
1990	25MAR90	C-6	S	.	0.19	ND	0.38	mg/kg	
1992	18FEB92	C-01	S	.	0.65	ND	1.30	mg/kg	
1992	18FEB92	C-02	S	.	3.75	ND	7.50	mg/kg	
1992	19FEB92	C-03	S	.	3.70	ND	7.40	mg/kg	
1992	19FEB92	C-04	S	.	4.30	ND	8.60	mg/kg	
1992	19FEB92	C-05	S	.	6.00	ND	12.00	mg/kg	
1992	20FEB92	C-06	S	.	2.70	ND	5.40	mg/kg	

N = 12

---------- Site=Pond C MEDIA=Sludges Analyte=4,4'-DDD Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	6.0000	6.0000	DET	.	mg/kg	C
1990	29MAR90	C-2	S	0.0800	0.0800	DET	.	mg/kg	C@
1990	25MAR90	C-3	S	1.9000	1.9000	DET	.	mg/kg	C
1990	29MAR90	C-4	S	0.4300	0.4300	DET	.	mg/kg	C
1990	29MAR90	C-5	S	16.0000	16.0000	DET	.	mg/kg	C
1990	25MAR90	C-6	S	0.1800	0.1800	DET	.	mg/kg	C
1992	18FEB92	C-01	S	0.0130	0.0130	DET	0.0130	mg/kg	
1992	18FEB92	C-02	S	0.3600	0.3600	DET	0.0750	mg/kg	C@
1992	19FEB92	C-03	S	0.3100	0.3100	DET	0.0770	mg/kg	C@
1992	19FEB92	C-04	S	0.5800	0.5800	DET	0.0860	mg/kg	C
1992	19FEB92	C-05	S	0.4200	0.4200	DET	0.1200	mg/kg	C@
1992	20FEB92	C-06	S	1.6000	1.6000	DET	0.0540	mg/kg	C
1994	30OCT94	01C	S	0.1100	0.1100	DET	0.0160	mg/kg	V
1994	30OCT94	02C	S	0.4800	0.4800	DET	0.1800	mg/kg	V
1994	30OCT94	03C	S	0.1300	0.1300	DET	0.0550	mg/kg	V
1994	30OCT94	04C	S	0.0360	0.0360	DET	0.0110	mg/kg	V
1994	30OCT94	05C	S	0.3600	0.3600	DET	0.0560	mg/kg	V
1994	30OCT94	06C	S	0.0340	0.0340	DET	0.0310	mg/kg	V
1994	30OCT94	07C	S	0.2200	0.2200	DET	0.0480	mg/kg	V
1994	30OCT94	08C	S	0.3900	0.3900	DET	0.0630	mg/kg	
1994	30OCT94	09C	S	0.0550	0.0550	DET	0.0190	mg/kg	V
1994	30OCT94	10C	S	0.0260	0.0260	DET	0.0190	mg/kg	V
1994	31OCT94	11C	S	0.6400	0.6400	DET	0.1300	mg/kg	V
1994	31OCT94	12C	S	0.0230	0.0230	DET	0.0082	mg/kg	V
1994	30OCT94	13C	S	0.0004	0.0004	DET	0.0048	mg/kg	VJ

N = 25

---------- Site=Pond C MEDIA=Sludges Analyte=4,4'-DDE Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	0.240	0.2400	DET	.	mg/kg	C@
1990	29MAR90	C-2	S	.	0.0345	ND	0.069	mg/kg	
1990	25MAR90	C-3	S	0.400	0.4000	DET	.	mg/kg	XG
1990	29MAR90	C-4	S	0.095	0.0950	DET	.	mg/kg	C@
1990	29MAR90	C-5	S	8.100	8.1000	DET	.	mg/kg	CG
1990	25MAR90	C-6	S	0.057	0.0570	DET	.	mg/kg	C@
1992	18FEB92	C-01	S	0.049	0.0490	DET	0.013	mg/kg	X@
1992	18FEB92	C-02	S	0.570	0.5700	DET	0.075	mg/kg	C
1992	19FEB92	C-03	S	0.320	0.3200	DET	0.077	mg/kg	C@
1992	19FEB92	C-04	S	0.460	0.4600	DET	0.086	mg/kg	C
1992	19FEB92	C-05	S	0.290	0.2900	DET	0.120	mg/kg	C@
1992	20FEB92	C-06	S	1.300	1.3000	DET	0.054	mg/kg	C
1994	30OCT94	01C	S	0.049	0.0490	DET	0.016	mg/kg	V
1994	30OCT94	02C	S	0.550	0.5500	DET	0.180	mg/kg	V

---------- Site=Pond C MEDIA=Sludges Analyte=4,4'-DDE Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	03C	S	0.370	0.37000	DET	0.0550	mg/kg	V
1994	30OCT94	04C	S	0.011	0.01100	DET	0.0110	mg/kg	V
1994	30OCT94	05C	S	0.290	0.29000	DET	0.0560	mg/kg	V
1994	30OCT94	06C	S	0.040	0.04000	DET	0.0310	mg/kg	V
1994	30OCT94	07C	S	0.140	0.14000	DET	0.0480	mg/kg	V
1994	30OCT94	08C	S	0.220	0.22000	DET	0.0630	mg/kg	V
1994	30OCT94	09C	S	0.036	0.03600	DET	0.0190	mg/kg	V
1994	30OCT94	10C	S	0.044	0.04400	DET	0.0190	mg/kg	V
1994	31OCT94	11C	S	0.270	0.27000	DET	0.1300	mg/kg	V
1994	31OCT94	12C	S	0.011	0.01100	DET	0.0082	mg/kg	V
1994	30OCT94	13C	S	.	0.00405	ND	0.0048	mg/kg	

N = 25

---------- Site=Pond C MEDIA=Sludges Analyte=4,4'-DDT Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.0230	0.02300	DET	0.0260	mg/kg	JC
1992	18FEB92	C-02	S	0.1300	0.13000	DET	0.1500	mg/kg	JC
1992	19FEB92	C-03	S	0.1500	0.15000	DET	0.1500	mg/kg	
1992	19FEB92	C-04	S	0.2100	0.21000	DET	0.1700	mg/kg	X@
1992	19FEB92	C-05	S	0.3600	0.36000	DET	0.2400	mg/kg	X@
1992	20FEB92	C-06	S	0.1400	0.14000	DET	0.1100	mg/kg	C@
1994	30OCT94	01C	S	.	0.00079	ND	0.0160	mg/kg	
1994	30OCT94	02C	S	0.0230	0.02300	DET	0.1800	mg/kg	J
1994	30OCT94	03C	S	.	0.00089	ND	0.0550	mg/kg	V
1994	30OCT94	04C	S	0.0010	0.00100	DET	0.0110	mg/kg	J
1994	30OCT94	05C	S	.	0.00044	ND	0.0560	mg/kg	V
1994	30OCT94	06C	S	.	0.00052	ND	0.0310	mg/kg	V
1994	30OCT94	07C	S	.	0.00007	ND	0.0480	mg/kg	V
1994	30OCT94	08C	S	.	0.00059	ND	0.0630	mg/kg	V
1994	30OCT94	09C	S	.	0.00081	ND	0.0190	mg/kg	V
1994	30OCT94	10C	S	.	0.00035	ND	0.0190	mg/kg	V
1994	31OCT94	11C	S	0.0360	0.03600	DET	0.1300	mg/kg	J
1994	31OCT94	12C	S	0.0034	0.00340	DET	0.0082	mg/kg	J
1994	30OCT94	13C	S	.	0.00097	ND	0.0048	mg/kg	V

N = 19

---------- Site=Pond C MEDIA=Sludges Analyte=Acetone Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	0.0450	0.0450	DET	.	mg/kg	B@
1990	29MAR90	C-2	S	.	0.0070	ND	0.014	mg/kg	
1990	25MAR90	C-3	S	0.0210	0.0210	DET	.	mg/kg	B@
1990	29MAR90	C-4	S	0.0090	0.0090	DET	.	mg/kg	J
1990	29MAR90	C-5	S	0.0320	0.0320	DET	.	mg/kg	J
1990	25MAR90	C-6	S	0.0045	0.0045	DET	.	mg/kg	JB
1992	18FEB92	C-01	S	0.3100	0.3100	DET	0.130	mg/kg	@
1992	18FEB92	C-02	S	1.5000	1.5000	DET	0.760	mg/kg	@
1992	19FEB92	C-03	S	2.3000	2.3000	DET	0.760	mg/kg	@
1992	19FEB92	C-04	S	0.5600	0.5600	DET	0.870	mg/kg	J
1992	19FEB92	C-05	S	1.9000	1.9000	DET	1.200	mg/kg	@
1992	20FEB92	C-06	S	0.7200	0.7200	DET	0.550	mg/kg	@

N = 12

-------- Site=Pond C MEDIA=Sludges Analyte=Acetophenone Method=SW8270 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.1	0.1	DET	1.3	mg/kg	J
1992	18FEB92	C-02	S	7.5	7.5	DET	7.5	mg/kg	
1992	19FEB92	C-03	S	7.4	7.4	DET	7.4	mg/kg	
1992	19FEB92	C-04	S	3.2	3.2	DET	8.6	mg/kg	J
1992	19FEB92	C-05	S	12.0	12.0	DET	12.0	mg/kg	
1992	20FEB92	C-06	S	5.4	5.4	DET	5.4	mg/kg	

N = 6

---------- Site=Pond C MEDIA=Sludges Analyte=Aluminum Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	11000	11000	DET	.	mg/kg	
1990	29MAR90	C-2	S	8900	8900	DET	.	mg/kg	
1990	25MAR90	C-3	S	13000	13000	DET	.	mg/kg	
1990	29MAR90	C-4	S	6800	6800	DET	.	mg/kg	
1990	29MAR90	C-5	S	9500	9500	DET	.	mg/kg	
1990	25MAR90	C-6	S	10000	10000	DET	.	mg/kg	

N = 6

---------- Site=Pond C MEDIA=Sludges Analyte=Arsenic Method=SW7060 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	.	0.800	ND	1.60	mg/kg	
1990	29MAR90	C-2	S	1.50	1.500	DET	.	mg/kg	@
1990	25MAR90	C-3	S	.	0.750	ND	1.50	mg/kg	
1990	29MAR90	C-4	S	.	0.350	ND	0.70	mg/kg	
1990	29MAR90	C-5	S	.	0.600	ND	1.20	mg/kg	
1990	25MAR90	C-6	S	1.20	1.200	DET	.	mg/kg	@
1992	18FEB92	C-01	S	.	2.550	ND	3.40	mg/kg	
1992	18FEB92	C-02	S	.	1.950	ND	2.60	mg/kg	
1992	19FEB92	C-03	S	.	1.875	ND	2.50	mg/kg	
1992	19FEB92	C-04	S	.	1.875	ND	2.50	mg/kg	
1992	19FEB92	C-05	S	.	2.850	ND	3.80	mg/kg	
1992	20FEB92	C-06	S	3.50	3.500	DET	1.70	mg/kg	@
1994	30OCT94	01C	S	0.88	0.880	DET	1.20	mg/kg	J
1994	30OCT94	02C	S	1.70	1.700	DET	2.70	mg/kg	J
1994	30OCT94	03C	S	2.00	2.000	DET	4.20	mg/kg	J
1994	30OCT94	04C	S	2.00	2.000	DET	0.86	mg/kg	
1994	30OCT94	05C	S	3.10	3.100	DET	4.20	mg/kg	J
1994	30OCT94	06C	S	3.30	3.300	DET	4.70	mg/kg	J
1994	30OCT94	07C	S	2.20	2.200	DET	3.60	mg/kg	J
1994	30OCT94	08C	S	1.10	1.100	DET	1.90	mg/kg	J
1994	30OCT94	09C	S	1.40	1.400	DET	1.40	mg/kg	J
1994	30OCT94	10C	S	1.20	1.200	DET	2.90	mg/kg	J
1994	31OCT94	11C	S	1.80	1.800	DET	2.00	mg/kg	J
1994	31OCT94	12C	S	1.00	1.000	DET	1.20	mg/kg	J
1994	30OCT94	13C	S	1.40	1.400	DET	0.72	mg/kg	

N = 25

---------- Site=Pond C MEDIA=Sludges Analyte=Barium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	93.0	93.0	DET	.	mg/kg	
1990	29MAR90	C-2	S	74.0	74.0	DET	.	mg/kg	
1990	25MAR90	C-3	S	92.0	92.0	DET	.	mg/kg	
1990	29MAR90	C-4	S	69.0	69.0	DET	.	mg/kg	
1990	29MAR90	C-5	S	100.0	100.0	DET	.	mg/kg	
1990	25MAR90	C-6	S	92.0	92.0	DET	.	mg/kg	
1992	18FEB92	C-01	S	130.0	130.0	DET	9.2	mg/kg	
1992	18FEB92	C-02	S	110.0	110.0	DET	5.9	mg/kg	
1992	19FEB92	C-03	S	61.0	61.0	DET	5.6	mg/kg	
1992	19FEB92	C-04	S	80.0	80.0	DET	7.1	mg/kg	
1992	19FEB92	C-05	S	100.0	100.0	DET	10.0	mg/kg	
1992	20FEB92	C-06	S	85.0	85.0	DET	4.0	mg/kg	
1994	30OCT94	01C	S	116.0	116.0	DET	2.4	mg/kg	
1994	30OCT94	02C	S	98.9	98.9	DET	2.7	mg/kg	

---------- Site=Pond C MEDIA=Sludges Analyte=Barium Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	03C	S	121.0	121.0	DET	8.3	mg/kg	
1994	30OCT94	04C	S	51.2	51.2	DET	1.7	mg/kg	
1994	30OCT94	05C	S	159.0	159.0	DET	8.5	mg/kg	
1994	30OCT94	06C	S	89.3	89.3	DET	9.5	mg/kg	
1994	30OCT94	07C	S	99.3	99.3	DET	7.2	mg/kg	
1994	30OCT94	08C	S	72.8	72.8	DET	3.8	mg/kg	
1994	30OCT94	09C	S	76.7	76.7	DET	2.8	mg/kg	
1994	30OCT94	10C	S	108.0	108.0	DET	5.8	mg/kg	
1994	31OCT94	11C	S	133.0	133.0	DET	3.9	mg/kg	
1994	31OCT94	12C	S	55.2	55.2	DET	2.5	mg/kg	
1994	30OCT94	13C	S	39.6	39.6	DET	2.9	mg/kg	

N = 25

---------- Site=Pond C MEDIA=Sludges Analyte=Benzene Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.0065	0.0065	DET	0.0065	mg/kg	
1992	18FEB92	C-02	S	0.0380	0.0380	DET	0.0380	mg/kg	
1992	19FEB92	C-03	S	0.0380	0.0380	DET	0.0380	mg/kg	
1992	19FEB92	C-04	S	0.0430	0.0430	DET	0.0430	mg/kg	
1992	19FEB92	C-05	S	0.0600	0.0600	DET	0.0600	mg/kg	
1992	20FEB92	C-06	S	0.0010	0.0010	DET	0.0270	mg/kg	J

N = 6

---------- Site=Pond C MEDIA=Sludges Analyte=Beryllium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	0.46	0.46000	DET	.	mg/kg	@
1990	29MAR90	C-2	S	.	0.13500	ND	0.27	mg/kg	
1990	25MAR90	C-3	S	0.43	0.43000	DET	.	mg/kg	@
1990	29MAR90	C-4	S	.	0.17000	ND	0.34	mg/kg	
1990	29MAR90	C-5	S	.	0.26000	ND	0.52	mg/kg	
1990	25MAR90	C-6	S	0.38	0.38000	DET	.	mg/kg	@
1992	20FEB92	C-06	S	.	0.40000	ND	0.80	mg/kg	
1994	30OCT94	01C	S	0.41	0.41000	DET	0.47	mg/kg	J
1994	30OCT94	02C	S	0.39	0.39000	DET	0.54	mg/kg	J
1994	30OCT94	03C	S	.	0.03484	ND	1.70	mg/kg	
1994	30OCT94	04C	S	0.20	0.20000	DET	0.34	mg/kg	J
1994	30OCT94	05C	S	.	0.17959	ND	1.70	mg/kg	

---------- Site=Pond C MEDIA=Sludges Analyte=Beryllium Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	06C	S	.	0.07290	ND	1.90	mg/kg	
1994	30OCT94	07C	S	.	0.16272	ND	1.40	mg/kg	
1994	30OCT94	08C	S	.	0.18242	ND	0.76	mg/kg	
1994	30OCT94	09C	S	.	0.17903	ND	0.56	mg/kg	
1994	30OCT94	10C	S	.	0.12522	ND	1.20	mg/kg	
1994	31OCT94	11C	S	0.47	0.47000	DET	0.78	mg/kg	J
1994	31OCT94	12C	S	.	0.12509	ND	0.50	mg/kg	
1994	30OCT94	13C	S	0.47	0.47000	DET	0.58	mg/kg	J

N = 20

---------- Site=Pond C MEDIA=Sludges Analyte=Cadmium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	.	3.45000	ND	4.60	mg/kg	
1992	18FEB92	C-02	S	4.2	4.20000	DET	2.90	mg/kg	@
1992	19FEB92	C-03	S	4.0	4.00000	DET	2.80	mg/kg	@
1992	19FEB92	C-04	S	4.2	4.20000	DET	3.60	mg/kg	@
1992	19FEB92	C-05	S	6.0	6.00000	DET	5.00	mg/kg	@
1992	20FEB92	C-06	S	.	1.50000	ND	2.00	mg/kg	
1994	30OCT94	01C	S	1.8	1.80000	DET	1.20	mg/kg	
1994	30OCT94	02C	S	1.4	1.40000	DET	1.40	mg/kg	
1994	30OCT94	03C	S	.	1.29427	ND	4.20	mg/kg	
1994	30OCT94	04C	S	.	0.18834	ND	0.86	mg/kg	
1994	30OCT94	05C	S	.	2.56382	ND	4.20	mg/kg	
1994	30OCT94	06C	S	.	2.68589	ND	4.70	mg/kg	
1994	30OCT94	07C	S	.	1.01512	ND	3.60	mg/kg	
1994	30OCT94	08C	S	.	1.14581	ND	1.90	mg/kg	
1994	30OCT94	09C	S	.	0.61404	ND	1.40	mg/kg	
1994	30OCT94	10C	S	.	2.41158	ND	2.90	mg/kg	
1994	31OCT94	11C	S	.	1.35384	ND	2.00	mg/kg	
1994	31OCT94	12C	S	.	0.39285	ND	1.20	mg/kg	
1994	30OCT94	13C	S	.	1.22988	ND	1.40	mg/kg	

N = 19

------ Site=Pond C MEDIA=Sludges Analyte=Carbon disulfide Method=SW8240 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	.	.0044	ND	.0088	mg/kg	
1990	29MAR90	C-2	S	.0071	.0071	DET	.	mg/kg	@

------ Site=Pond C MEDIA=Sludges Analyte=Carbon disulfide Method=SW8240 -------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-3	S	.	0.00400	ND	0.0080	mg/kg	
1990	29MAR90	C-4	S	0.0140	0.01400	DET	.	mg/kg	@
1990	29MAR90	C-5	S	0.0140	0.01400	DET	.	mg/kg	J
1990	25MAR90	C-6	S	.	0.00365	ND	0.0073	mg/kg	
1992	18FEB92	C-01	S	0.0065	0.00650	DET	0.0065	mg/kg	
1992	18FEB92	C-02	S	0.0240	0.02400	DET	0.0380	mg/kg	J
1992	19FEB92	C-03	S	0.0470	0.04700	DET	0.0380	mg/kg	@
1992	19FEB92	C-04	S	0.0500	0.05000	DET	0.0430	mg/kg	@
1992	19FEB92	C-05	S	0.1100	0.11000	DET	0.0600	mg/kg	@
1992	20FEB92	C-06	S	0.0710	0.07100	DET	0.0270	mg/kg	@

N = 12

---------- Site=Pond C MEDIA=Sludges Analyte=Chromium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	34.0	34.0	DET	.	mg/kg	
1990	29MAR90	C-2	S	18.0	18.0	DET	.	mg/kg	
1990	25MAR90	C-3	S	27.0	27.0	DET	.	mg/kg	
1990	29MAR90	C-4	S	7.9	7.9	DET	.	mg/kg	@
1990	29MAR90	C-5	S	25.0	25.0	DET	.	mg/kg	
1990	25MAR90	C-6	S	9.3	9.3	DET	.	mg/kg	
1992	18FEB92	C-01	S	120.0	120.0	DET	9.2	mg/kg	
1992	18FEB92	C-02	S	86.0	86.0	DET	5.9	mg/kg	
1992	19FEB92	C-03	S	46.0	46.0	DET	5.6	mg/kg	
1992	19FEB92	C-04	S	91.0	91.0	DET	7.1	mg/kg	
1992	19FEB92	C-05	S	76.0	76.0	DET	10.0	mg/kg	
1992	20FEB92	C-06	S	63.0	63.0	DET	4.0	mg/kg	
1994	30OCT94	01C	S	62.5	62.5	DET	2.4	mg/kg	
1994	30OCT94	02C	S	39.1	39.1	DET	2.7	mg/kg	
1994	30OCT94	03C	S	84.2	84.2	DET	8.3	mg/kg	
1994	30OCT94	04C	S	6.3	6.3	DET	1.7	mg/kg	
1994	30OCT94	05C	S	71.1	71.1	DET	8.5	mg/kg	
1994	30OCT94	06C	S	54.8	54.8	DET	9.5	mg/kg	
1994	30OCT94	07C	S	57.7	57.7	DET	7.2	mg/kg	
1994	30OCT94	08C	S	22.7	22.7	DET	3.8	mg/kg	
1994	30OCT94	09C	S	15.7	15.7	DET	2.8	mg/kg	
1994	30OCT94	10C	S	82.0	82.0	DET	5.8	mg/kg	
1994	31OCT94	11C	S	23.0	23.0	DET	3.9	mg/kg	
1994	31OCT94	12C	S	17.5	17.5	DET	2.5	mg/kg	
1994	30OCT94	13C	S	3.9	3.9	DET	2.9	mg/kg	

N = 25

---------- Site=Pond C MEDIA=Sludges Analyte=Cobalt Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	3.8	3.8	DET	.	mg/kg	@
1990	29MAR90	C-2	S	3.3	3.3	DET	.	mg/kg	@
1990	25MAR90	C-3	S	4.2	4.2	DET	.	mg/kg	@
1990	29MAR90	C-4	S	2.7	2.7	DET	.	mg/kg	@
1990	29MAR90	C-5	S	3.6	3.6	DET	.	mg/kg	@
1990	25MAR90	C-6	S	3.3	3.3	DET	.	mg/kg	@
1992	18FEB92	C-01	S	9.2	9.2	DET	9.2	mg/kg	
1992	18FEB92	C-02	S	5.9	5.9	DET	5.9	mg/kg	
1992	19FEB92	C-03	S	5.6	5.6	DET	5.6	mg/kg	
1992	19FEB92	C-04	S	7.1	7.1	DET	7.1	mg/kg	
1992	19FEB92	C-05	S	10.0	10.0	DET	10.0	mg/kg	
1992	20FEB92	C-06	S	4.3	4.3	DET	4.0	mg/kg	@
1994	30OCT94	01C	S	3.8	3.8	DET	2.4	mg/kg	
1994	30OCT94	02C	S	3.9	3.9	DET	2.7	mg/kg	
1994	30OCT94	03C	S	3.6	3.6	DET	8.3	mg/kg	J
1994	30OCT94	04C	S	1.9	1.9	DET	1.7	mg/kg	
1994	30OCT94	05C	S	5.9	5.9	DET	8.5	mg/kg	J
1994	30OCT94	06C	S	5.9	5.9	DET	9.5	mg/kg	J
1994	30OCT94	07C	S	5.4	5.4	DET	7.2	mg/kg	J
1994	30OCT94	08C	S	1.8	1.8	DET	3.8	mg/kg	J
1994	30OCT94	09C	S	3.3	3.3	DET	2.8	mg/kg	
1994	30OCT94	10C	S	4.2	4.2	DET	5.8	mg/kg	J
1994	31OCT94	11C	S	4.3	4.3	DET	3.9	mg/kg	
1994	31OCT94	12C	S	2.2	2.2	DET	2.5	mg/kg	J
1994	30OCT94	13C	S	1.7	1.7	DET	2.9	mg/kg	J

N = 25

---------- Site=Pond C MEDIA=Sludges Analyte=Copper Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	28.0	28.0	DET	.	mg/kg	
1990	29MAR90	C-2	S	16.0	16.0	DET	.	mg/kg	
1990	25MAR90	C-3	S	31.0	31.0	DET	.	mg/kg	
1990	29MAR90	C-4	S	15.0	15.0	DET	.	mg/kg	@
1990	29MAR90	C-5	S	44.0	44.0	DET	.	mg/kg	
1990	25MAR90	C-6	S	7.4	7.4	DET	.	mg/kg	@
1992	18FEB92	C-01	S	220.0	220.0	DET	18.0	mg/kg	
1992	18FEB92	C-02	S	190.0	190.0	DET	12.0	mg/kg	
1992	19FEB92	C-03	S	250.0	250.0	DET	11.0	mg/kg	
1992	19FEB92	C-04	S	130.0	130.0	DET	14.0	mg/kg	
1992	19FEB92	C-05	S	260.0	260.0	DET	20.0	mg/kg	
1992	20FEB92	C-06	S	67.0	67.0	DET	8.0	mg/kg	
1994	30OCT94	01C	S	104.0	104.0	DET	4.7	mg/kg	
1994	30OCT94	02C	S	107.0	107.0	DET	5.4	mg/kg	

---------- Site=Pond C MEDIA=Sludges Analyte=Copper Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	03C	S	164.0	164.0	DET	16.7	mg/kg	
1994	30OCT94	04C	S	9.3	9.3	DET	3.4	mg/kg	
1994	30OCT94	05C	S	88.4	88.4	DET	17.0	mg/kg	
1994	30OCT94	06C	S	126.0	126.0	DET	19.0	mg/kg	
1994	30OCT94	07C	S	109.0	109.0	DET	14.5	mg/kg	
1994	30OCT94	08C	S	37.4	37.4	DET	7.6	mg/kg	
1994	30OCT94	09C	S	88.4	88.4	DET	5.6	mg/kg	
1994	30OCT94	10C	S	129.0	129.0	DET	11.7	mg/kg	
1994	31OCT94	11C	S	38.2	38.2	DET	7.8	mg/kg	
1994	31OCT94	12C	S	39.6	39.6	DET	5.0	mg/kg	
1994	30OCT94	13C	S	3.3	3.3	DET	5.8	mg/kg	J

N = 25

---------- Site=Pond C MEDIA=Sludges Analyte=Cyanide Method=SW9012 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	330.0	330.0	DET	13.0	mg/kg	
1992	18FEB92	C-02	S	1.6	1.6	DET	1.6	mg/kg	
1992	19FEB92	C-03	S	6.5	6.5	DET	1.6	mg/kg	@
1992	19FEB92	C-04	S	1.7	1.7	DET	1.7	mg/kg	
1992	19FEB92	C-05	S	2.6	2.6	DET	2.6	mg/kg	
1992	20FEB92	C-06	S	1.1	1.1	DET	1.1	mg/kg	

N = 6

-------- Site=Pond C MEDIA=Sludges Analyte=Dibenzofuran Method=SW8270 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	0.31	0.310	DET	.	mg/kg	@
1990	29MAR90	C-2	S	.	0.090	ND	0.18	mg/kg	
1990	25MAR90	C-3	S	.	0.105	ND	0.21	mg/kg	
1990	29MAR90	C-4	S	.	0.100	ND	0.20	mg/kg	
1990	25MAR90	C-6	S	.	0.095	ND	0.19	mg/kg	

N = 5

------ Site=Pond C MEDIA=Sludges Analyte=Dibutylphthalate Method=SW8270 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	.	0.145	ND	0.29	mg/kg	
1990	29MAR90	C-2	S	.	0.110	ND	0.22	mg/kg	
1990	25MAR90	C-3	S	.	0.130	ND	0.26	mg/kg	
1990	29MAR90	C-4	S	.	0.125	ND	0.25	mg/kg	
1990	29MAR90	C-5	S	.	3.900	ND	7.80	mg/kg	
1990	25MAR90	C-6	S	.	0.120	ND	0.24	mg/kg	
1992	18FEB92	C-01	S	0.046	0.046	DET	1.30	mg/kg	J
1992	18FEB92	C-02	S	0.350	0.350	DET	7.50	mg/kg	J
1992	19FEB92	C-03	S	.	5.550	ND	7.40	mg/kg	
1992	19FEB92	C-04	S	.	6.450	ND	8.60	mg/kg	
1992	19FEB92	C-05	S	.	9.000	ND	12.00	mg/kg	
1992	20FEB92	C-06	S	.	4.050	ND	5.40	mg/kg	

N = 12

---------- Site=Pond C MEDIA=Sludges Analyte=Dieldrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01C	S	.0029	.0029000	DET	0.0160	mg/kg	J
1994	30OCT94	02C	S	.	.0006918	ND	0.1800	mg/kg	
1994	30OCT94	03C	S	.0028	.0028000	DET	0.0550	mg/kg	J
1994	30OCT94	04C	S	.	.0016296	ND	0.0110	mg/kg	
1994	30OCT94	05C	S	.0043	.0043000	DET	0.0560	mg/kg	J
1994	30OCT94	06C	S	.	.0022128	ND	0.0310	mg/kg	
1994	30OCT94	07C	S	.	.0002058	ND	0.0480	mg/kg	
1994	30OCT94	08C	S	.	.0016261	ND	0.0630	mg/kg	
1994	30OCT94	09C	S	.	.0020280	ND	0.0190	mg/kg	
1994	30OCT94	10C	S	.	.0022737	ND	0.0190	mg/kg	
1994	31OCT94	11C	S	.	.0026876	ND	0.1300	mg/kg	
1994	31OCT94	12C	S	.	.0023693	ND	0.0082	mg/kg	
1994	30OCT94	13C	S	.	.0001868	ND	0.0048	mg/kg	

N = 13

-------- Site=Pond C MEDIA=Sludges Analyte=Endosulfan I Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	29MAR90	C-2	S	1.500	1.500	DET	.	mg/kg	X
1990	29MAR90	C-4	S	0.850	0.850	DET	.	mg/kg	X
1990	29MAR90	C-5	S	4.400	4.400	DET	.	mg/kg	X
1992	18FEB92	C-01	S	0.013	0.013	DET	0.013	mg/kg	
1992	18FEB92	C-02	S	0.075	0.075	DET	0.075	mg/kg	

-------- Site=Pond C MEDIA=Sludges Analyte=Endosulfan I Method=SW8080 ---------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	19FEB92	C-03	S	0.0770	0.07700	DET	0.0770	mg/kg	
1992	19FEB92	C-04	S	0.0860	0.08600	DET	0.0860	mg/kg	
1992	19FEB92	C-05	S	0.3800	0.38000	DET	0.1200	mg/kg	X@
1992	20FEB92	C-06	S	0.0540	0.05400	DET	0.0540	mg/kg	
1994	30OCT94	01C	S	.	0.00005	ND	0.0081	mg/kg	
1994	30OCT94	02C	S	.	0.00083	ND	0.0920	mg/kg	
1994	30OCT94	03C	S	.	0.00489	ND	0.0280	mg/kg	
1994	30OCT94	04C	S	.	0.00379	ND	0.0059	mg/kg	V
1994	30OCT94	05C	S	.	0.00363	ND	0.0290	mg/kg	
1994	30OCT94	06C	S	0.0049	0.00490	DET	0.0160	mg/kg	J
1994	30OCT94	07C	S	.	0.00267	ND	0.0250	mg/kg	
1994	30OCT94	08C	S	.	0.00238	ND	0.0320	mg/kg	
1994	30OCT94	09C	S	.	0.00278	ND	0.0096	mg/kg	V
1994	30OCT94	10C	S	.	0.00171	ND	0.0099	mg/kg	V
1994	31OCT94	11C	S	.	0.00048	ND	0.0660	mg/kg	
1994	31OCT94	12C	S	.	0.00465	ND	0.0042	mg/kg	V
1994	30OCT94	13C	S	.	0.00471	ND	0.0024	mg/kg	V

N = 22

-------- Site=Pond C MEDIA=Sludges Analyte=Ethyl benzene Method=SW8240 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.0039	0.0039	DET	0.0065	mg/kg	J
1992	18FEB92	C-02	S	0.0150	0.0150	DET	0.0380	mg/kg	J
1992	19FEB92	C-03	S	0.0160	0.0160	DET	0.0380	mg/kg	J
1992	19FEB92	C-04	S	0.0430	0.0430	DET	0.0430	mg/kg	@
1992	19FEB92	C-05	S	0.0200	0.0200	DET	0.0600	mg/kg	J
1992	20FEB92	C-06	S	0.0250	0.0250	DET	0.0270	mg/kg	J

N = 6

-------- Site=Pond C MEDIA=Sludges Analyte=Fluoranthene Method=SW8270 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.085	0.085	DET	1.3	mg/kg	J
1992	18FEB92	C-02	S	0.340	0.340	DET	7.5	mg/kg	J
1992	19FEB92	C-03	S	.	5.550	ND	7.4	mg/kg	
1992	19FEB92	C-04	S	.	6.450	ND	8.6	mg/kg	
1992	19FEB92	C-05	S	.	9.000	ND	12.0	mg/kg	
1992	20FEB92	C-06	S	.	4.050	ND	5.4	mg/kg	

N = 6

---------- Site=Pond C MEDIA=Sludges Analyte=Kepone Method=MRI-SOP ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01C	S	.	.0007095	ND	0.07	mg/kg	
1994	30OCT94	03C	S	.	.0022139	ND	0.07	mg/kg	
1994	30OCT94	05C	S	.	.0029070	ND	0.07	mg/kg	
1994	30OCT94	06C	S	.	.0000225	ND	0.07	mg/kg	
1994	30OCT94	08C	S	.	.0002138	ND	0.07	mg/kg	
1994	30OCT94	10C	S	.	.0023754	ND	0.07	mg/kg	
1994	31OCT94	11C	S	.	.0027584	ND	0.07	mg/kg	
1994	30OCT94	13C	S	.0036	.0036000	DET	0.07	mg/kg	J

N = 8

------- Site=Pond C MEDIA=Sludges Analyte=Kepone (Mirex) Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	.	0.0065	ND	0.013	mg/kg	
1992	18FEB92	C-02	S	.	0.0375	ND	0.075	mg/kg	
1992	19FEB92	C-03	S	.	0.0385	ND	0.077	mg/kg	
1992	19FEB92	C-04	S	.	0.0430	ND	0.086	mg/kg	
1992	19FEB92	C-05	S	.	0.0600	ND	0.120	mg/kg	
1992	20FEB92	C-06	S	.	0.0270	ND	0.054	mg/kg	
1993	.	C-4	S	5.79	5.7900	DET	0.078	mg/kg	C
1993	.	C-5	S	95.70	95.7000	DET	0.680	mg/kg	C

N = 8

---------- Site=Pond C MEDIA=Sludges Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	12.0	12.0	DET	.	mg/kg	
1990	29MAR90	C-2	S	6.4	6.4	DET	.	mg/kg	
1990	25MAR90	C-3	S	17.0	17.0	DET	.	mg/kg	
1990	29MAR90	C-4	S	4.7	4.7	DET	.	mg/kg	
1990	29MAR90	C-5	S	12.0	12.0	DET	.	mg/kg	
1990	25MAR90	C-6	S	5.6	5.6	DET	.	mg/kg	
1992	18FEB92	C-01	S	48.0	48.0	DET	2.6	mg/kg	Z
1992	18FEB92	C-02	S	36.0	36.0	DET	1.9	mg/kg	
1992	19FEB92	C-03	S	27.0	27.0	DET	1.9	mg/kg	
1992	19FEB92	C-04	S	22.0	22.0	DET	1.9	mg/kg	
1992	19FEB92	C-05	S	64.0	64.0	DET	11.0	mg/kg	
1992	20FEB92	C-06	S	13.0	13.0	DET	1.3	mg/kg	
1994	30OCT94	01C	S	31.5	31.5	DET	5.9	mg/kg	
1994	30OCT94	02C	S	20.5	20.5	DET	1.4	mg/kg	

---------- Site=Pond C MEDIA=Sludges Analyte=Lead Method=SW7421 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	03C	S	19.80	19.80	DET	4.2	mg/kg	
1994	30OCT94	04C	S	0.55	0.55	DET	1.7	mg/kg	J
1994	30OCT94	05C	S	18.10	18.10	DET	4.2	mg/kg	
1994	30OCT94	06C	S	16.50	16.50	DET	4.7	mg/kg	
1994	30OCT94	07C	S	15.40	15.40	DET	3.6	mg/kg	
1994	30OCT94	08C	S	7.20	7.20	DET	9.5	mg/kg	J
1994	30OCT94	09C	S	7.50	7.50	DET	1.4	mg/kg	
1994	30OCT94	10C	S	12.90	12.90	DET	29.2	mg/kg	J
1994	31OCT94	11C	S	9.20	9.20	DET	9.8	mg/kg	J
1994	31OCT94	12C	S	5.20	5.20	DET	6.2	mg/kg	J
1994	30OCT94	13C	S	1.30	1.30	DET	2.9	mg/kg	J

N = 25

---------- Site=Pond C MEDIA=Sludges Analyte=Manganese Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	210	210	DET	.	mg/kg	
1990	29MAR90	C-2	S	120	120	DET	.	mg/kg	
1990	25MAR90	C-3	S	180	180	DET	.	mg/kg	
1990	29MAR90	C-4	S	92	92	DET	.	mg/kg	
1990	29MAR90	C-5	S	170	170	DET	.	mg/kg	
1990	25MAR90	C-6	S	110	110	DET	.	mg/kg	

N = 6

---------- Site=Pond C MEDIA=Sludges Analyte=Mercury Method=SW7471 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	1.60	1.60000	DET	0.50	mg/kg	@
1992	18FEB92	C-02	S	0.83	0.83000	DET	0.35	mg/kg	@
1992	19FEB92	C-03	S	0.84	0.84000	DET	0.35	mg/kg	@
1992	19FEB92	C-04	S	0.94	0.94000	DET	0.37	mg/kg	@
1992	19FEB92	C-05	S	1.00	1.00000	DET	0.56	mg/kg	@
1992	20FEB92	C-06	S	0.54	0.54000	DET	0.25	mg/kg	@
1994	30OCT94	01C	S	0.44	0.44000	DET	0.24	mg/kg	
1994	30OCT94	02C	S	0.49	0.49000	DET	0.27	mg/kg	
1994	30OCT94	03C	S	1.00	1.00000	DET	0.83	mg/kg	
1994	30OCT94	04C	S	.	0.04265	ND	0.17	mg/kg	
1994	30OCT94	05C	S	1.20	1.20000	DET	0.85	mg/kg	
1994	30OCT94	06C	S	.	0.07995	ND	0.95	mg/kg	

---------- Site=Pond C MEDIA=Sludges Analyte=Mercury Method=SW7471 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	07C	S	.	0.00417	ND	0.72	mg/kg	
1994	30OCT94	08C	S	.	0.07080	ND	0.38	mg/kg	
1994	30OCT94	09C	S	0.32	0.32000	DET	0.28	mg/kg	
1994	30OCT94	10C	S	1.20	1.20000	DET	0.58	mg/kg	
1994	31OCT94	11C	S	0.55	0.55000	DET	0.39	mg/kg	
1994	31OCT94	12C	S	0.13	0.13000	DET	0.25	mg/kg	J
1994	30OCT94	13C	S	0.09	0.09000	DET	0.14	mg/kg	J

N = 19

----- Site=Pond C MEDIA=Sludges Analyte=Methyl ethyl ketone Method=SW8240 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	.	0.0090	ND	0.018	mg/kg	
1990	29MAR90	C-2	S	.	0.0070	ND	0.014	mg/kg	
1990	25MAR90	C-3	S	.	0.0080	ND	0.016	mg/kg	
1990	29MAR90	C-4	S	.	0.0080	ND	0.016	mg/kg	
1990	29MAR90	C-5	S	0.016	0.0160	DET	.	mg/kg	J
1990	25MAR90	C-6	S	.	0.0075	ND	0.015	mg/kg	
1992	18FEB92	C-01	S	0.043	0.0430	DET	0.130	mg/kg	J
1992	18FEB92	C-02	S	0.190	0.1900	DET	0.760	mg/kg	J
1992	19FEB92	C-03	S	0.290	0.2900	DET	0.760	mg/kg	J
1992	19FEB92	C-04	S	0.072	0.0720	DET	0.870	mg/kg	J
1992	19FEB92	C-05	S	0.310	0.3100	DET	1.200	mg/kg	J
1992	20FEB92	C-06	S	0.130	0.1300	DET	0.550	mg/kg	J

N = 12

----- Site=Pond C MEDIA=Sludges Analyte=Methylene chloride Method=SW8240 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	.0045	.00450	DET	.	mg/kg	JB
1990	29MAR90	C-2	S	.0019	.00190	DET	.	mg/kg	J
1990	25MAR90	C-3	S	.0022	.00220	DET	.	mg/kg	JB
1990	29MAR90	C-4	S	.	.00390	ND	.0078	mg/kg	
1990	29MAR90	C-5	S	.0073	.00730	DET	.	mg/kg	J
1990	25MAR90	C-6	S	.0027	.00270	DET	.	mg/kg	JB
1992	18FEB92	C-01	S	.	.00325	ND	.0065	mg/kg	

N = 7

---------- Site=Pond C MEDIA=Sludges Analyte=Nickel Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	7.5	7.50	DET	.	mg/kg	@
1990	29MAR90	C-2	S	6.2	6.20	DET	.	mg/kg	@
1990	25MAR90	C-3	S	9.1	9.10	DET	.	mg/kg	@
1990	29MAR90	C-4	S	4.4	4.40	DET	.	mg/kg	@
1990	29MAR90	C-5	S	7.9	7.90	DET	.	mg/kg	@
1990	25MAR90	C-6	S	6.0	6.00	DET	.	mg/kg	@
1992	18FEB92	C-01	S	.	13.50	ND	18.0	mg/kg	
1992	18FEB92	C-02	S	15.0	15.00	DET	12.0	mg/kg	@
1992	19FEB92	C-03	S	.	8.25	ND	11.0	mg/kg	
1992	19FEB92	C-04	S	.	10.50	ND	14.0	mg/kg	
1992	19FEB92	C-05	S	.	15.00	ND	20.0	mg/kg	
1992	20FEB92	C-06	S	12.0	12.00	DET	8.0	mg/kg	@
1994	30OCT94	01C	S	12.1	12.10	DET	9.5	mg/kg	
1994	30OCT94	02C	S	13.6	13.60	DET	10.8	mg/kg	
1994	30OCT94	03C	S	14.9	14.90	DET	33.4	mg/kg	J
1994	30OCT94	04C	S	3.8	3.80	DET	6.9	mg/kg	J
1994	30OCT94	05C	S	16.6	16.60	DET	34.0	mg/kg	J
1994	30OCT94	06C	S	12.3	12.30	DET	37.9	mg/kg	J
1994	30OCT94	07C	S	10.4	10.40	DET	29.0	mg/kg	J
1994	30OCT94	08C	S	5.2	5.20	DET	15.2	mg/kg	J
1994	30OCT94	09C	S	7.6	7.60	DET	11.3	mg/kg	J
1994	30OCT94	10C	S	16.1	16.10	DET	23.4	mg/kg	J
1994	31OCT94	11C	S	8.4	8.40	DET	15.6	mg/kg	J
1994	31OCT94	12C	S	4.4	4.40	DET	10.0	mg/kg	J
1994	30OCT94	13C	S	3.3	3.30	DET	11.5	mg/kg	J

N = 25

-------- Site=Pond C MEDIA=Sludges Analyte=Phenanthrene Method=SW8270 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	1.800	1.800	DET	.	mg/kg	@
1990	29MAR90	C-2	S	.	0.240	ND	0.48	mg/kg	
1990	25MAR90	C-3	S	0.300	0.300	DET	.	mg/kg	J
1990	29MAR90	C-4	S	.	0.270	ND	0.54	mg/kg	
1990	29MAR90	C-5	S	11.000	11.000	DET	.	mg/kg	@
1990	25MAR90	C-6	S	.	0.260	ND	0.52	mg/kg	
1992	18FEB92	C-01	S	0.097	0.097	DET	1.30	mg/kg	J
1992	18FEB92	C-02	S	1.000	1.000	DET	7.50	mg/kg	J
1992	19FEB92	C-03	S	0.740	0.740	DET	7.40	mg/kg	J
1992	19FEB92	C-04	S	1.100	1.100	DET	8.60	mg/kg	J
1992	19FEB92	C-05	S	0.760	0.760	DET	12.00	mg/kg	J
1992	20FEB92	C-06	S	1.300	1.300	DET	5.40	mg/kg	J

N = 12

---------- Site=Pond C MEDIA=Sludges Analyte=Phenol Method=SW8270 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	.	0.150	ND	0.30	mg/kg	
1990	29MAR90	C-2	S	.	0.115	ND	0.23	mg/kg	
1990	25MAR90	C-3	S	.	0.135	ND	0.27	mg/kg	
1990	29MAR90	C-4	S	.	0.130	ND	0.26	mg/kg	
1990	25MAR90	C-6	S	0.15	0.150	DET	.	mg/kg	J

N = 5

---------- Site=Pond C MEDIA=Sludges Analyte=Pyrene Method=SW8270 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	.	0.120	ND	0.24	mg/kg	
1990	29MAR90	C-2	S	.	0.095	ND	0.19	mg/kg	
1990	25MAR90	C-3	S	.	0.110	ND	0.22	mg/kg	
1990	29MAR90	C-4	S	.	0.105	ND	0.21	mg/kg	
1990	29MAR90	C-5	S	.	3.300	ND	6.60	mg/kg	
1990	25MAR90	C-6	S	0.200	0.200	DET	.	mg/kg	@
1992	18FEB92	C-01	S	0.092	0.092	DET	1.30	mg/kg	J
1992	18FEB92	C-02	S	0.570	0.570	DET	7.50	mg/kg	J
1992	19FEB92	C-03	S	.	5.550	ND	7.40	mg/kg	
1992	19FEB92	C-04	S	.	6.450	ND	8.60	mg/kg	
1992	19FEB92	C-05	S	.	9.000	ND	12.00	mg/kg	
1992	20FEB92	C-06	S	.	4.050	ND	5.40	mg/kg	

N = 12

---------- Site=Pond C MEDIA=Sludges Analyte=Selenium Method=SW7740 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	.	0.49	ND	0.98	mg/kg	
1990	29MAR90	C-2	S	.	0.37	ND	0.74	mg/kg	
1990	25MAR90	C-3	S	.	0.47	ND	0.94	mg/kg	
1990	29MAR90	C-4	S	.	0.44	ND	0.88	mg/kg	
1990	29MAR90	C-5	S	.	0.75	ND	1.50	mg/kg	
1990	25MAR90	C-6	S	.	0.38	ND	0.76	mg/kg	
1992	18FEB92	C-01	S	6.30	6.30	DET	4.30	mg/kg	@
1992	18FEB92	C-02	S	3.90	3.90	DET	3.20	mg/kg	@
1992	19FEB92	C-03	S	.	2.40	ND	3.20	mg/kg	
1992	19FEB92	C-04	S	.	2.40	ND	3.20	mg/kg	
1992	19FEB92	C-05	S	6.30	6.30	DET	4.70	mg/kg	@
1992	20FEB92	C-06	S	3.00	3.00	DET	2.20	mg/kg	@
1994	30OCT94	01C	S	0.92	0.92	DET	1.20	mg/kg	J

---------- Site=Pond C MEDIA=Sludges Analyte=Selenium Method=SW7740 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	02C	S	1.30	1.30000	DET	1.4	mg/kg	J
1994	30OCT94	03C	S	2.70	2.70000	DET	4.2	mg/kg	J
1994	30OCT94	04C	S	0.31	0.31000	DET	1.7	mg/kg	J
1994	30OCT94	05C	S	2.40	2.40000	DET	4.2	mg/kg	J
1994	30OCT94	06C	S	3.60	3.60000	DET	4.7	mg/kg	J
1994	30OCT94	07C	S	1.80	1.80000	DET	3.6	mg/kg	J
1994	30OCT94	08C	S	0.84	0.84000	DET	1.9	mg/kg	J
1994	30OCT94	09C	S	1.00	1.00000	DET	1.4	mg/kg	J
1994	30OCT94	10C	S	1.50	1.50000	DET	2.9	mg/kg	J
1994	31OCT94	11C	S	1.40	1.40000	DET	2.0	mg/kg	J
1994	31OCT94	12C	S	0.55	0.55000	DET	1.2	mg/kg	J
1994	30OCT94	13C	S	.	0.24107	ND	2.9	mg/kg	

N = 25

---------- Site=Pond C MEDIA=Sludges Analyte=Silicon Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	800	800	DET	.	mg/kg	@
1990	29MAR90	C-2	S	2400	2400	DET	.	mg/kg	
1990	25MAR90	C-3	S	820	820	DET	.	mg/kg	@
1990	29MAR90	C-4	S	3900	3900	DET	.	mg/kg	
1990	29MAR90	C-5	S	8200	8200	DET	.	mg/kg	
1990	25MAR90	C-6	S	500	500	DET	.	mg/kg	@

N = 6

---------- Site=Pond C MEDIA=Sludges Analyte=Silver Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	4.9	4.9	DET	.	mg/kg	@
1990	29MAR90	C-2	S	.	0.7	ND	1.4	mg/kg	
1990	25MAR90	C-3	S	.	0.9	ND	1.8	mg/kg	
1990	29MAR90	C-4	S	1.8	1.8	DET	.	mg/kg	@
1990	29MAR90	C-5	S	.	1.3	ND	2.6	mg/kg	
1990	25MAR90	C-6	S	.	0.7	ND	1.4	mg/kg	
1992	18FEB92	C-01	S	320.0	320.0	DET	9.2	mg/kg	
1992	18FEB92	C-02	S	200.0	200.0	DET	5.9	mg/kg	
1992	19FEB92	C-03	S	190.0	190.0	DET	5.6	mg/kg	
1992	19FEB92	C-04	S	170.0	170.0	DET	7.1	mg/kg	
1992	19FEB92	C-05	S	160.0	160.0	DET	10.0	mg/kg	

---------- Site=Pond C MEDIA=Sludges Analyte=Silver Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	C-06	S	95.0	95.000	DET	4.0	mg/kg	
1994	30OCT94	01C	S	117.0	117.000	DET	2.4	mg/kg	
1994	30OCT94	02C	S	94.6	94.600	DET	2.7	mg/kg	
1994	30OCT94	03C	S	179.0	179.000	DET	8.3	mg/kg	
1994	30OCT94	04C	S	2.1	2.100	DET	1.7	mg/kg	
1994	30OCT94	05C	S	131.0	131.000	DET	8.5	mg/kg	
1994	30OCT94	06C	S	84.3	84.300	DET	9.5	mg/kg	
1994	30OCT94	07C	S	116.0	116.000	DET	7.2	mg/kg	
1994	30OCT94	08C	S	40.4	40.400	DET	3.8	mg/kg	
1994	30OCT94	09C	S	26.5	26.500	DET	2.8	mg/kg	
1994	30OCT94	10C	S	154.0	154.000	DET	5.8	mg/kg	
1994	31OCT94	11C	S	31.2	31.200	DET	3.9	mg/kg	
1994	31OCT94	12C	S	26.2	26.200	DET	2.5	mg/kg	
1994	30OCT94	13C	S	.	2.148	ND	2.9	mg/kg	

N = 25

---------- Site=Pond C MEDIA=Sludges Analyte=Sulfide Method=SW9030 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	2800	2800	DET	250	mg/kg	
1992	18FEB92	C-02	S	1100	1100	DET	190	mg/kg	
1992	19FEB92	C-03	S	190	190	DET	190	mg/kg	
1992	19FEB92	C-04	S	1600	1600	DET	210	mg/kg	
1992	19FEB92	C-05	S	2100	2100	DET	310	mg/kg	
1992	20FEB92	C-06	S	1400	1400	DET	140	mg/kg	

N = 6

------ Site=Pond C MEDIA=Sludges Analyte=Sulfide, Reactive Method=SW9030 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	07MAR95	01C	S	72.9	72.9	DET	5.5	mg/kg	
1995	08MAR95	03C	S	134.0	134.0	DET	10.2	mg/kg	
1995	08MAR95	07C	S	7.8	7.8	DET	2.8	mg/kg	
1995	08MAR95	08C	S	32.3	32.3	DET	2.9	mg/kg	
1995	08MAR95	10C	S	57.3	57.3	DET	6.0	mg/kg	
1995	08MAR95	11C	S	88.8	88.8	DET	6.2	mg/kg	

N = 6

------- Site=Pond C MEDIA=Sludges Analyte=Sulfide, Total Method=E376.2 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	07MAR95	01C	S	131.0	131.0	DET	13.8	mg/kg	
1995	08MAR95	03C	S	43.0	43.0	DET	5.1	mg/kg	
1995	08MAR95	07C	S	66.1	66.1	DET	5.6	mg/kg	
1995	08MAR95	08C	S	4.5	4.5	DET	2.9	mg/kg	
1995	08MAR95	10C	S	23.9	23.9	DET	3.0	mg/kg	
1995	08MAR95	11C	S	473.0	473.0	DET	30.8	mg/kg	

N = 6

------ Site=Pond C MEDIA=Sludges Analyte=Tetrachloroethene Method=SW8240 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.00650	0.00650	DET	0.0065	mg/kg	
1992	18FEB92	C-02	S	0.03800	0.03800	DET	0.0380	mg/kg	
1992	19FEB92	C-03	S	0.03800	0.03800	DET	0.0380	mg/kg	
1992	19FEB92	C-04	S	0.04300	0.04300	DET	0.0430	mg/kg	
1992	19FEB92	C-05	S	0.06000	0.06000	DET	0.0600	mg/kg	
1992	20FEB92	C-06	S	0.00081	0.00081	DET	0.0270	mg/kg	J

N = 6

---------- Site=Pond C MEDIA=Sludges Analyte=Tin Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01C	S	12.1	12.1000	DET	23.7	mg/kg	J
1994	30OCT94	02C	S	8.9	8.9000	DET	27.1	mg/kg	J
1994	30OCT94	03C	S	27.9	27.9000	DET	83.4	mg/kg	J
1994	30OCT94	04C	S	.	2.1359	ND	93.1	mg/kg	
1994	30OCT94	05C	S	24.0	24.0000	DET	85.0	mg/kg	J
1994	30OCT94	06C	S	26.3	26.3000	DET	94.8	mg/kg	J
1994	30OCT94	07C	S	18.8	18.8000	DET	72.4	mg/kg	J
1994	30OCT94	08C	S	.	2.7029	ND	38.1	mg/kg	J
1994	30OCT94	09C	S	.	8.3299	ND	28.2	mg/kg	
1994	30OCT94	10C	S	19.7	19.7000	DET	58.5	mg/kg	J
1994	31OCT94	11C	S	.	4.3172	ND	39.1	mg/kg	
1994	31OCT94	12C	S	.	1.6310	ND	112.0	mg/kg	
1994	30OCT94	13C	S	.	6.2423	ND	173.0	mg/kg	

N = 13

---------- Site=Pond C MEDIA=Sludges Analyte=Toluene Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.0072	0.0072	DET	0.0065	mg/kg	B@
1992	18FEB92	C-02	S	0.0069	0.0069	DET	0.0380	mg/kg	JB
1992	19FEB92	C-03	S	0.0086	0.0086	DET	0.0380	mg/kg	JB
1992	19FEB92	C-04	S	0.0065	0.0065	DET	0.0430	mg/kg	JB
1992	19FEB92	C-05	S	0.0130	0.0130	DET	0.0600	mg/kg	JB
1992	20FEB92	C-06	S	0.0150	0.0150	DET	0.0270	mg/kg	JB

N = 6

---------- Site=Pond C MEDIA=Sludges Analyte=Vanadium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	27.0	27.0	DET	.	mg/kg	
1990	29MAR90	C-2	S	15.0	15.0	DET	.	mg/kg	
1990	25MAR90	C-3	S	28.0	28.0	DET	.	mg/kg	
1990	29MAR90	C-4	S	15.0	15.0	DET	.	mg/kg	@
1990	29MAR90	C-5	S	24.0	24.0	DET	.	mg/kg	@
1990	25MAR90	C-6	S	18.0	18.0	DET	.	mg/kg	
1992	18FEB92	C-01	S	55.0	55.0	DET	18.0	mg/kg	@
1992	18FEB92	C-02	S	48.0	48.0	DET	12.0	mg/kg	@
1992	19FEB92	C-03	S	40.0	40.0	DET	11.0	mg/kg	@
1992	19FEB92	C-04	S	37.0	37.0	DET	14.0	mg/kg	@
1992	19FEB92	C-05	S	47.0	47.0	DET	20.0	mg/kg	@
1992	20FEB92	C-06	S	32.0	32.0	DET	8.0	mg/kg	@
1994	30OCT94	01C	S	31.8	31.8	DET	2.4	mg/kg	
1994	30OCT94	02C	S	34.4	34.4	DET	2.7	mg/kg	
1994	30OCT94	03C	S	47.4	47.4	DET	8.3	mg/kg	
1994	30OCT94	04C	S	16.9	16.9	DET	1.7	mg/kg	
1994	30OCT94	05C	S	49.4	49.4	DET	8.5	mg/kg	
1994	30OCT94	06C	S	44.0	44.0	DET	9.5	mg/kg	
1994	30OCT94	07C	S	47.8	47.8	DET	7.2	mg/kg	
1994	30OCT94	08C	S	23.6	23.6	DET	3.8	mg/kg	
1994	30OCT94	09C	S	32.3	32.3	DET	2.8	mg/kg	
1994	30OCT94	10C	S	47.6	47.6	DET	5.8	mg/kg	
1994	31OCT94	11C	S	43.6	43.6	DET	3.9	mg/kg	
1994	31OCT94	12C	S	23.6	23.6	DET	2.5	mg/kg	
1994	30OCT94	13C	S	14.8	14.8	DET	2.9	mg/kg	

N = 25

---------- Site=Pond C MEDIA=Sludges Analyte=Xylenes Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	0.0024	0.00240	DET	.	mg/kg	J
1990	29MAR90	C-2	S	.	0.00350	ND	0.0070	mg/kg	
1990	25MAR90	C-3	S	0.0026	0.00260	DET	.	mg/kg	JB
1990	29MAR90	C-4	S	.	0.00390	ND	0.0078	mg/kg	
1990	29MAR90	C-5	S	.	0.00850	ND	0.0170	mg/kg	
1990	25MAR90	C-6	S	.	0.00365	ND	0.0073	mg/kg	
1992	18FEB92	C-01	S	0.0170	0.01700	DET	0.0065	mg/kg	@
1992	18FEB92	C-02	S	0.0820	0.08200	DET	0.0380	mg/kg	@
1992	19FEB92	C-03	S	0.0770	0.07700	DET	0.0380	mg/kg	@
1992	19FEB92	C-04	S	0.0710	0.07100	DET	0.0430	mg/kg	@
1992	19FEB92	C-05	S	0.1300	0.13000	DET	0.0600	mg/kg	@
1992	20FEB92	C-06	S	0.0450	0.04500	DET	0.0270	mg/kg	@

N = 12

---------- Site=Pond C MEDIA=Sludges Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	66.0	66.0	DET	.	mg/kg	
1990	29MAR90	C-2	S	37.0	37.0	DET	.	mg/kg	
1990	25MAR90	C-3	S	65.0	65.0	DET	.	mg/kg	
1990	29MAR90	C-4	S	34.0	34.0	DET	.	mg/kg	
1990	29MAR90	C-5	S	130.0	130.0	DET	.	mg/kg	
1990	25MAR90	C-6	S	25.0	25.0	DET	.	mg/kg	
1992	18FEB92	C-01	S	330.0	330.0	DET	18.0	mg/kg	
1992	18FEB92	C-02	S	240.0	240.0	DET	12.0	mg/kg	
1992	19FEB92	C-03	S	250.0	250.0	DET	11.0	mg/kg	
1992	19FEB92	C-04	S	170.0	170.0	DET	14.0	mg/kg	
1992	19FEB92	C-05	S	240.0	240.0	DET	20.0	mg/kg	
1992	20FEB92	C-06	S	110.0	110.0	DET	8.0	mg/kg	
1994	30OCT94	01C	S	121.0	121.0	DET	4.7	mg/kg	
1994	30OCT94	02C	S	145.0	145.0	DET	5.4	mg/kg	
1994	30OCT94	03C	S	218.0	218.0	DET	16.7	mg/kg	
1994	30OCT94	04C	S	22.6	22.6	DET	3.4	mg/kg	
1994	30OCT94	05C	S	149.0	149.0	DET	17.0	mg/kg	
1994	30OCT94	06C	S	155.0	155.0	DET	19.0	mg/kg	
1994	30OCT94	07C	S	143.0	143.0	DET	14.5	mg/kg	
1994	30OCT94	08C	S	58.3	58.3	DET	7.6	mg/kg	
1994	30OCT94	09C	S	91.3	91.3	DET	5.6	mg/kg	
1994	30OCT94	10C	S	175.0	175.0	DET	11.7	mg/kg	
1994	31OCT94	11C	S	55.6	55.6	DET	7.8	mg/kg	
1994	31OCT94	12C	S	53.9	53.9	DET	5.0	mg/kg	
1994	30OCT94	13C	S	12.8	12.8	DET	5.8	mg/kg	

N = 25

---------- Site=Pond C MEDIA=Sludges Analyte=alpha-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01C	S	.	.0000044	ND	0.0081	mg/kg	
1994	30OCT94	02C	S	.	.0000299	ND	0.0920	mg/kg	
1994	30OCT94	03C	S	.000370	.0003700	DET	0.0280	mg/kg	J
1994	30OCT94	04C	S	.000120	.0001200	DET	0.0059	mg/kg	J
1994	30OCT94	05C	S	.	.0000093	ND	0.0290	mg/kg	
1994	30OCT94	06C	S	.	.0000186	ND	0.0160	mg/kg	
1994	30OCT94	07C	S	.	.0000161	ND	0.0250	mg/kg	
1994	30OCT94	08C	S	.	.0000398	ND	0.0320	mg/kg	
1994	30OCT94	09C	S	.000130	.0001300	DET	0.0096	mg/kg	J
1994	30OCT94	10C	S	.	.0000223	ND	0.0099	mg/kg	V
1994	31OCT94	11C	S	.001000	.0010000	DET	0.0660	mg/kg	J
1994	31OCT94	12C	S	.000044	.0000440	DET	0.0042	mg/kg	J
1994	30OCT94	13C	S	.	.0000360	ND	0.0024	mg/kg	

N = 13

------- Site=Pond C MEDIA=Sludges Analyte=alpha-Chlordane Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.013	0.013	DET	0.013	mg/kg	
1992	18FEB92	C-02	S	0.075	0.075	DET	0.075	mg/kg	
1992	19FEB92	C-03	S	0.066	0.066	DET	0.077	mg/kg	JC
1992	19FEB92	C-04	S	0.086	0.086	DET	0.086	mg/kg	
1992	19FEB92	C-05	S	0.120	0.120	DET	0.120	mg/kg	
1992	20FEB92	C-06	S	0.054	0.054	DET	0.054	mg/kg	

N = 6

- Site=Pond C MEDIA=Sludges Analyte=bis(2-Ethylhexyl)phthalate Method=SW8270 --

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-1	S	1.20	1.20	DET	.	mg/kg	@
1990	29MAR90	C-2	S	0.75	0.75	DET	.	mg/kg	@
1990	25MAR90	C-3	S	0.65	0.65	DET	.	mg/kg	@
1990	29MAR90	C-4	S	0.91	0.91	DET	.	mg/kg	@
1990	29MAR90	C-5	S	6.20	6.20	DET	.	mg/kg	J
1990	25MAR90	C-6	S	.	0.24	ND	0.48	mg/kg	
1992	18FEB92	C-01	S	11.00	11.00	DET	1.30	mg/kg	B
1992	18FEB92	C-02	S	36.00	36.00	DET	7.50	mg/kg	B@
1992	19FEB92	C-03	S	25.00	25.00	DET	7.40	mg/kg	B@
1992	19FEB92	C-04	S	.	6.45	ND	8.60	mg/kg	
1992	19FEB92	C-05	S	21.00	21.00	DET	12.00	mg/kg	B@

- Site=Pond C MEDIA=Sludges Analyte=bis(2-Ethylhexyl)phthalate Method=SW8270 --
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	C-06	S	6.3	6.3	DET	5.4	mg/kg	B@

N = 12

---------- Site=Pond C MEDIA=Sludges Analyte=delta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.01300	0.01300	DET	0.0130	mg/kg	
1992	18FEB92	C-02	S	0.75000	0.75000	DET	0.7500	mg/kg	D
1992	19FEB92	C-03	S	0.07700	0.07700	DET	0.0770	mg/kg	
1992	19FEB92	C-04	S	1.60000	1.60000	DET	0.0860	mg/kg	X
1992	19FEB92	C-05	S	5.00000	5.00000	DET	0.1200	mg/kg	X
1992	20FEB92	C-06	S	1.60000	1.60000	DET	0.0540	mg/kg	X
1994	30OCT94	01C	S	0.00053	0.00053	DET	0.0081	mg/kg	J
1994	30OCT94	02C	S	.	0.00041	ND	0.0920	mg/kg	
1994	30OCT94	03C	S	0.00380	0.00380	DET	0.0280	mg/kg	J
1994	30OCT94	04C	S	.	0.00020	ND	0.0059	mg/kg	
1994	30OCT94	05C	S	.	0.00004	ND	0.0290	mg/kg	
1994	30OCT94	06C	S	.	0.00014	ND	0.0160	mg/kg	
1994	30OCT94	07C	S	0.00240	0.00240	DET	0.0250	mg/kg	J
1994	30OCT94	08C	S	.	0.00027	ND	0.0320	mg/kg	
1994	30OCT94	09C	S	.	0.00010	ND	0.0096	mg/kg	
1994	30OCT94	10C	S	.	0.00046	ND	0.0099	mg/kg	
1994	31OCT94	11C	S	.	0.00002	ND	0.0660	mg/kg	
1994	31OCT94	12C	S	.	0.00010	ND	0.0042	mg/kg	
1994	30OCT94	13C	S	.	0.00043	ND	0.0024	mg/kg	

N = 19

---------- Site=Pond C MEDIA=Sludges Analyte=gamma-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01C	S	.00061	.0006100	DET	0.0081	mg/kg	VJ
1994	30OCT94	02C	S	.	.0001114	ND	0.0920	mg/kg	
1994	30OCT94	03C	S	.	.0002317	ND	0.0280	mg/kg	V
1994	30OCT94	04C	S	.	.0001491	ND	0.0059	mg/kg	
1994	30OCT94	05C	S	.00120	.0012000	DET	0.0290	mg/kg	J
1994	30OCT94	06C	S	.	.0004344	ND	0.0160	mg/kg	V
1994	30OCT94	07C	S	.	.0001685	ND	0.0250	mg/kg	
1994	30OCT94	08C	S	.	.0004222	ND	0.0320	mg/kg	
1994	30OCT94	09C	S	.00044	.0004400	DET	0.0096	mg/kg	VJ

---------- Site=Pond C MEDIA=Sludges Analyte=gamma-BHC Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	10C	S	.0013	.0013000	DET	0.0099	mg/kg	J
1994	31OCT94	11C	S	.	.0003038	ND	0.0660	mg/kg	
1994	31OCT94	12C	S	.	.0003655	ND	0.0042	mg/kg	
1994	30OCT94	13C	S	.	.0001968	ND	0.0024	mg/kg	

N = 13

------- Site=Pond C MEDIA=Sludges Analyte=gamma-Chlordane Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.013	0.013	DET	0.013	mg/kg	
1992	18FEB92	C-02	S	0.075	0.075	DET	0.075	mg/kg	
1992	19FEB92	C-03	S	0.140	0.140	DET	0.077	mg/kg	C@
1992	19FEB92	C-04	S	0.150	0.150	DET	0.086	mg/kg	C@
1992	19FEB92	C-05	S	0.210	0.210	DET	0.120	mg/kg	C@
1992	20FEB92	C-06	S	0.051	0.051	DET	0.054	mg/kg	JX

N = 6

---------- Site=Pond C MEDIA=Soils Analyte=4,4'-DDD Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	0.1600	0.1600	DET	.	mg/kg	CG
1990	29MAR90	C-2	S	0.1800	0.1800	DET	.	mg/kg	C@
1990	25MAR90	C-3	S	0.1600	0.1600	DET	.	mg/kg	CG
1990	29MAR90	C-4	S	0.0780	0.0780	DET	.	mg/kg	C
1990	29MAR90	C-5	S	.	0.0260	ND	0.0520	mg/kg	
1990	25MAR90	C-6	S	0.0740	0.0740	DET	.	mg/kg	CG
1992	18FEB92	C-01	S	0.0610	0.0610	DET	0.0210	mg/kg	X@
1992	18FEB92	C-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	19FEB92	C-03	S	0.0980	0.0980	DET	0.0027	mg/kg	C
1992	19FEB92	C-03	S	0.0013	0.0013	DET	0.0013	mg/kg	
1992	19FEB92	C-04	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	19FEB92	C-05	S	0.0075	0.0075	DET	0.0014	mg/kg	C
1992	20FE892	C-06	S	0.0023	0.0023	DET	0.0013	mg/kg	C@
1992	20FEB92	C-06	S	0.0013	0.0013	DET	0.0013	mg/kg	

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=4,4'-DDE Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	0.0140	0.01400	DET	.	mg/kg	C@
1990	29MAR90	C-2	S	0.2400	0.24000	DET	.	mg/kg	C@
1990	25MAR90	C-3	S	.	0.01200	ND	0.0240	mg/kg	
1990	29MAR90	C-4	S	0.0210	0.02100	DET	.	mg/kg	C@
1990	29MAR90	C-5	S	.	0.02600	ND	0.0520	mg/kg	
1990	25MAR90	C-6	S	.	0.00255	ND	0.0051	mg/kg	
1992	18FEB92	C-01	S	0.0620	0.06200	DET	0.0210	mg/kg	C@
1992	18FEB92	C-02	S	0.0014	0.00140	DET	0.0014	mg/kg	
1992	19FEB92	C-03	S	0.0180	0.01800	DET	0.0027	mg/kg	C
1992	19FEB92	C-03	S	0.0013	0.00130	DET	0.0013	mg/kg	
1992	19FEB92	C-04	S	0.0014	0.00140	DET	0.0014	mg/kg	
1992	19FEB92	C-05	S	0.0140	0.01400	DET	0.0014	mg/kg	X
1992	20FEB92	C-06	S	0.0055	0.00550	DET	0.0013	mg/kg	X@
1992	20FEB92	C-06	S	0.0013	0.00130	DET	0.0013	mg/kg	

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=4,4'-DDT Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.0420	0.0420	DET	0.0420	mg/kg	
1992	18FEB92	C-02	S	0.0027	0.0027	DET	0.0027	mg/kg	
1992	19FEB92	C-03	S	0.0057	0.0057	DET	0.0055	mg/kg	X@
1992	19FEB92	C-03	S	0.0026	0.0026	DET	0.0026	mg/kg	
1992	19FEB92	C-04	S	0.0027	0.0027	DET	0.0027	mg/kg	
1992	19FEB92	C-05	S	0.0027	0.0027	DET	0.0027	mg/kg	
1992	20FEB92	C-06	S	0.0024	0.0024	DET	0.0026	mg/kg	JC
1992	20FEB92	C-06	S	0.0025	0.0025	DET	0.0025	mg/kg	

N = 8

---------- Site=Pond C MEDIA=Soils Analyte=Acetone Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	0.0073	0.0073	DET	.	mg/kg	JB
1990	29MAR90	C-2	S	0.0190	0.0190	DET	.	mg/kg	@
1990	25MAR90	C-3	S	0.0078	0.0078	DET	.	mg/kg	JB
1990	29MAR90	C-4	S	.	0.0075	ND	0.015	mg/kg	
1990	29MAR90	C-5	S	0.0080	0.0080	DET	.	mg/kg	J
1990	25MAR90	C-6	S	0.0091	0.0091	DET	.	mg/kg	JB
1992	18FEB92	C-01	S	0.4300	0.4300	DET	1.100	mg/kg	J
1992	18FEB92	C-02	S	0.0560	0.0560	DET	0.140	mg/kg	J

---------- Site=Pond C MEDIA=Soils Analyte=Acetone Method=SW8240 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	19FEB92	C-03	S	0.0300	0.0300	DET	0.14	mg/kg	J
1992	19FEB92	C-03	S	0.0120	0.0120	DET	0.13	mg/kg	J
1992	19FEB92	C-04	S	.	0.1050	ND	0.14	mg/kg	
1992	19FEB92	C-05	S	.	0.1050	ND	0.14	mg/kg	
1992	20FEB92	C-06	S	0.0084	0.0084	DET	0.13	mg/kg	J
1992	20FEB92	C-06	S	0.0310	0.0310	DET	0.13	mg/kg	J

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=Aldrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.0210	0.0210	DET	0.0210	mg/kg	
1992	18FEB92	C-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	19FEB92	C-03	S	0.0027	0.0027	DET	0.0027	mg/kg	
1992	19FEB92	C-03	S	0.0013	0.0013	DET	0.0013	mg/kg	
1992	19FEB92	C-04	S	0.0020	0.0020	DET	0.0014	mg/kg	C@
1992	19FEB92	C-05	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	20FEB92	C-06	S	0.0022	0.0022	DET	0.0013	mg/kg	C@
1992	20FEB92	C-06	S	0.0015	0.0015	DET	0.0013	mg/kg	C@

N = 8

---------- Site=Pond C MEDIA=Soils Analyte=Aluminum Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	10000	10000	DET	.	mg/kg	
1990	29MAR90	C-2	S	11000	11000	DET	.	mg/kg	
1990	25MAR90	C-3	S	11000	11000	DET	.	mg/kg	
1990	29MAR90	C-4	S	9200	9200	DET	.	mg/kg	
1990	29MAR90	C-5	S	11000	11000	DET	.	mg/kg	
1990	25MAR90	C-6	S	9200	9200	DET	.	mg/kg	

N = 6

---------- Site=Pond C MEDIA=Soils Analyte=Arsenic Method=SW7060 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	1.70	1.70	DET	.	mg/kg	@
1990	29MAR90	C-2	S	.	0.60	ND	1.20	mg/kg	
1990	25MAR90	C-3	S	.	0.50	ND	1.00	mg/kg	
1990	29MAR90	C-4	S	1.10	1.10	DET	.	mg/kg	@
1990	29MAR90	C-5	S	.	0.55	ND	1.10	mg/kg	
1990	25MAR90	C-6	S	1.20	1.20	DET	.	mg/kg	@
1992	18FEB92	C-01	S	2.40	2.40	DET	0.38	mg/kg	
1992	18FEB92	C-02	S	2.20	2.20	DET	0.51	mg/kg	@
1992	19FEB92	C-03	S	0.79	0.79	DET	0.42	mg/kg	@
1992	19FEB92	C-03	S	1.30	1.30	DET	0.36	mg/kg	@
1992	19FEB92	C-04	S	1.10	1.10	DET	0.45	mg/kg	@
1992	19FEB92	C-05	S	1.00	1.00	DET	0.39	mg/kg	@
1992	20FEB92	C-06	S	2.60	2.60	DET	0.39	mg/kg	
1992	20FEB92	C-06	S	2.40	2.40	DET	0.42	mg/kg	

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=Barium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	84	84	DET	.	mg/kg	
1990	29MAR90	C-2	S	110	110	DET	.	mg/kg	
1990	25MAR90	C-3	S	160	160	DET	.	mg/kg	
1990	29MAR90	C-4	S	94	94	DET	.	mg/kg	
1990	29MAR90	C-5	S	96	96	DET	.	mg/kg	
1990	25MAR90	C-6	S	160	160	DET	.	mg/kg	
1992	18FEB92	C-01	S	110	110	DET	3.8	mg/kg	
1992	18FEB92	C-02	S	63	63	DET	3.9	mg/kg	
1992	19FEB92	C-03	S	54	54	DET	4.4	mg/kg	
1992	19FEB92	C-03	S	61	61	DET	4.0	mg/kg	
1992	19FEB92	C-04	S	44	44	DET	4.2	mg/kg	
1992	19FEB92	C-05	S	64	64	DET	4.2	mg/kg	
1992	20FEB92	C-06	S	59	59	DET	4.4	mg/kg	
1992	20FEB92	C-06	S	88	88	DET	4.2	mg/kg	

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=Beryllium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	0.42	0.42	DET	.	mg/kg	@
1990	29MAR90	C-2	S	0.41	0.41	DET	.	mg/kg	@

---------- Site=Pond C MEDIA=Soils Analyte=Beryllium Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-3	S	0.44	0.440	DET	.	mg/kg	@
1990	29MAR90	C-4	S	0.30	0.300	DET	.	mg/kg	@
1990	29MAR90	C-5	S	0.38	0.380	DET	.	mg/kg	@
1990	25MAR90	C-6	S	0.37	0.370	DET	.	mg/kg	@
1992	18FEB92	C-01	S	.	0.385	ND	0.77	mg/kg	
1992	18FEB92	C-02	S	.	0.390	ND	0.78	mg/kg	
1992	19FEB92	C-03	S	.	0.440	ND	0.88	mg/kg	
1992	19FEB92	C-03	S	.	0.405	ND	0.81	mg/kg	
1992	19FEB92	C-04	S	.	0.420	ND	0.84	mg/kg	
1992	19FEB92	C-05	S	.	0.420	ND	0.84	mg/kg	
1992	20FEB92	C-06	S	.	0.420	ND	0.84	mg/kg	

N = 13

------- Site=Pond C MEDIA=Soils Analyte=Carbon disulfide Method=SW8240 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	.	0.003350	ND	0.0067	mg/kg	
1990	29MAR90	C-2	S	0.0270	0.027000	DET	.	mg/kg	@
1990	25MAR90	C-3	S	.	0.003150	ND	0.0063	mg/kg	
1990	29MAR90	C-4	S	0.0190	0.019000	DET	.	mg/kg	@
1990	29MAR90	C-5	S	0.0270	0.027000	DET	.	mg/kg	@
1990	25MAR90	C-6	S	.	0.003200	ND	0.0064	mg/kg	
1992	18FEB92	C-01	S	.	0.039750	ND	0.0530	mg/kg	
1992	18FEB92	C-02	S	0.0076	0.007600	DET	0.0068	mg/kg	@
1992	19FEB92	C-03	S	0.0085	0.008500	DET	0.0070	mg/kg	@
1992	19FEB92	C-03	S	0.0029	0.002900	DET	0.0065	mg/kg	J
1992	19FEB92	C-04	S	0.0067	0.006700	DET	0.0068	mg/kg	J
1992	19FEB92	C-05	S	0.0016	0.001600	DET	0.0068	mg/kg	J
1992	20FEB92	C-06	S	.	0.005025	ND	0.0067	mg/kg	
1992	20FEB92	C-06	S	.	0.004800	ND	0.0064	mg/kg	

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=Chromium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	9.6	9.6	DET	.	mg/kg	
1990	29MAR90	C-2	S	15.0	15.0	DET	.	mg/kg	
1990	25MAR90	C-3	S	10.0	10.0	DET	.	mg/kg	
1990	29MAR90	C-4	S	8.2	8.2	DET	.	mg/kg	

---------- Site=Pond C MEDIA=Soils Analyte=Chromium Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	29MAR90	C-5	S	11.0	11.00	DET	.	mg/kg	
1990	25MAR90	C-6	S	8.9	8.90	DET	.	mg/kg	
1992	18FEB92	C-01	S	4.4	4.40	DET	3.8	mg/kg	@
1992	18FEB92	C-02	S	4.7	4.70	DET	3.9	mg/kg	@
1992	19FEB92	C-03	S	5.0	5.00	DET	4.4	mg/kg	@
1992	19FEB92	C-03	S	6.9	6.90	DET	4.0	mg/kg	@
1992	19FEB92	C-04	S	.	3.15	ND	4.2	mg/kg	
1992	19FEB92	C-05	S	.	3.15	ND	4.2	mg/kg	
1992	20FEB92	C-06	S	8.5	8.50	DET	4.4	mg/kg	@
1992	20FEB92	C-06	S	6.7	6.70	DET	4.2	mg/kg	@

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=Cobalt Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	3.6	3.60	DET	.	mg/kg	@
1990	29MAR90	C-2	S	3.9	3.90	DET	.	mg/kg	@
1990	25MAR90	C-3	S	3.9	3.90	DET	.	mg/kg	@
1990	29MAR90	C-4	S	3.0	3.00	DET	.	mg/kg	@
1990	29MAR90	C-5	S	3.5	3.50	DET	.	mg/kg	@
1990	25MAR90	C-6	S	3.4	3.40	DET	.	mg/kg	@
1992	18FEB92	C-01	S	.	1.90	ND	3.8	mg/kg	
1992	18FEB92	C-02	S	.	1.95	ND	3.9	mg/kg	
1992	19FEB92	C-03	S	.	2.20	ND	4.4	mg/kg	
1992	19FEB92	C-03	S	.	2.00	ND	4.0	mg/kg	
1992	19FEB92	C-04	S	.	2.10	ND	4.2	mg/kg	
1992	19FEB92	C-05	S	.	2.10	ND	4.2	mg/kg	
1992	20FEB92	C-06	S	.	2.20	ND	4.4	mg/kg	
1992	20FEB92	C-06	S	.	2.10	ND	4.2	mg/kg	

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=Copper Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	7.6	7.6	DET	.	mg/kg	@
1990	29MAR90	C-2	S	18.0	18.0	DET	.	mg/kg	
1990	25MAR90	C-3	S	7.0	7.0	DET	.	mg/kg	@
1990	29MAR90	C-4	S	6.6	6.6	DET	.	mg/kg	@
1990	29MAR90	C-5	S	8.1	8.1	DET	.	mg/kg	@

---------- Site=Pond C MEDIA=Soils Analyte=Copper Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-6	S	5.1	5.10	DET	.	mg/kg	@
1992	18FEB92	C-01	S	.	3.85	ND	7.7	mg/kg	
1992	18FEB92	C-02	S	.	3.90	ND	7.8	mg/kg	
1992	19FEB92	C-03	S	.	4.40	ND	8.8	mg/kg	
1992	19FEB92	C-03	S	.	4.05	ND	8.1	mg/kg	
1992	19FEB92	C-04	S	.	4.20	ND	8.4	mg/kg	
1992	19FEB92	C-05	S	.	4.20	ND	8.4	mg/kg	
1992	20FEB92	C-06	S	.	4.45	ND	8.9	mg/kg	
1992	20FEB92	C-06	S	.	4.20	ND	8.4	mg/kg	

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=Cyanide Method=SW9012 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.37	0.37	DET	0.31	mg/kg	@
1992	18FEB92	C-02	S	0.59	0.59	DET	0.33	mg/kg	@
1992	19FEB92	C-03	S	0.75	0.75	DET	0.31	mg/kg	@
1992	19FEB92	C-03	S	1.20	1.20	DET	0.32	mg/kg	@
1992	19FEB92	C-04	S	0.34	0.34	DET	0.34	mg/kg	
1992	19FEB92	C-05	S	0.33	0.33	DET	0.33	mg/kg	
1992	20FEB92	C-06	S	0.31	0.31	DET	0.31	mg/kg	
1992	20FEB92	C-06	S	0.30	0.30	DET	0.30	mg/kg	

N = 8

------ Site=Pond C MEDIA=Soils Analyte=Di-n-octylphthalate Method=SW8270 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	11.00	11.00	DET	11.0	mg/kg	
1992	18FEB92	C-02	S	0.22	0.22	DET	1.4	mg/kg	J
1992	19FEB92	C-03	S	1.40	1.40	DET	1.4	mg/kg	
1992	19FEB92	C-03	S	1.30	1.30	DET	1.3	mg/kg	
1992	19FEB92	C-04	S	1.40	1.40	DET	1.4	mg/kg	
1992	19FEB92	C-05	S	1.40	1.40	DET	1.4	mg/kg	
1992	20FEB92	C-06	S	1.30	1.30	DET	1.3	mg/kg	
1992	20FEB92	C-06	S	1.30	1.30	DET	1.3	mg/kg	

N = 8

------- Site=Pond C MEDIA=Soils Analyte=Dibutylphthalate Method=SW8270 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	.	0.110	ND	0.22	mg/kg	
1990	29MAR90	C-2	S	.	0.120	ND	0.24	mg/kg	
1990	25MAR90	C-3	S	.	0.100	ND	0.20	mg/kg	
1990	29MAR90	C-4	S	0.26	0.260	DET	.	mg/kg	@
1990	29MAR90	C-5	S	0.21	0.210	DET	.	mg/kg	J
1990	25MAR90	C-6	S	.	0.105	ND	0.21	mg/kg	

N = 6

--------- Site=Pond C MEDIA=Soils Analyte=Dichloroprop Method=SW8150 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	.	0.0425	ND	0.085	mg/kg	
1990	29MAR90	C-2	S	0.153	0.1530	DET	.	mg/kg	C@
1990	25MAR90	C-3	S	.	0.0425	ND	0.085	mg/kg	
1990	29MAR90	C-4	S	.	0.0455	ND	0.091	mg/kg	
1990	29MAR90	C-5	S	.	0.0425	ND	0.085	mg/kg	
1990	25MAR90	C-6	S	.	0.0390	ND	0.078	mg/kg	

N = 6

--------- Site=Pond C MEDIA=Soils Analyte=Endosulfan I Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	.	0.00650	ND	0.0130	mg/kg	
1990	29MAR90	C-2	S	0.44	0.44000	DET	.	mg/kg	X
1990	25MAR90	C-3	S	.	0.01200	ND	0.0240	mg/kg	
1990	29MAR90	C-4	S	0.17	0.17000	DET	.	mg/kg	X
1990	29MAR90	C-5	S	0.44	0.44000	DET	.	mg/kg	X
1990	25MAR90	C-6	S	.	0.00255	ND	0.0051	mg/kg	
1992	18FEB92	C-01	S	.	0.01050	ND	0.0210	mg/kg	
1992	18FEB92	C-02	S	.	0.00070	ND	0.0014	mg/kg	
1992	19FEB92	C-03	S	.	0.00135	ND	0.0027	mg/kg	
1992	19FEB92	C-03	S	.	0.00065	ND	0.0013	mg/kg	
1992	19FEB92	C-04	S	.	0.00070	ND	0.0014	mg/kg	
1992	19FEB92	C-05	S	.	0.00070	ND	0.0014	mg/kg	
1992	20FEB92	C-06	S	.	0.00065	ND	0.0013	mg/kg	
1992	20FEB92	C-06	S	.	0.00065	ND	0.0013	mg/kg	

N = 14

------ Site=Pond C MEDIA=Soils Analyte=Endosulfan sulfate Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.00110	0.00110	DET	0.1100	mg/kg	JX
1992	18FEB92	C-02	S	0.00140	0.00140	DET	0.0068	mg/kg	JC
1992	19FEB92	C-03	S	0.01400	0.01400	DET	0.0140	mg/kg	
1992	19FEB92	C-03	S	0.00052	0.00052	DET	0.0065	mg/kg	JX
1992	19FEB92	C-04	S	0.00680	0.00680	DET	0.0068	mg/kg	
1992	19FEB92	C-05	S	0.00680	0.00680	DET	0.0068	mg/kg	
1992	20FEB92	C-06	S	0.00650	0.00650	DET	0.0065	mg/kg	
1992	20FEB92	C-06	S	0.00630	0.00630	DET	0.0063	mg/kg	

N = 8

-------- Site=Pond C MEDIA=Soils Analyte=Endrin aldehyde Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.0420	0.0420	DET	0.0420	mg/kg	
1992	18FEB92	C-02	S	0.0027	0.0027	DET	0.0027	mg/kg	
1992	19FEB92	C-03	S	0.0055	0.0055	DET	0.0055	mg/kg	
1992	19FEB92	C-03	S	0.0026	0.0026	DET	0.0026	mg/kg	
1992	19FEB92	C-04	S	0.0027	0.0027	DET	0.0027	mg/kg	
1992	19FEB92	C-05	S	0.0027	0.0027	DET	0.0027	mg/kg	
1992	20FEB92	C-06	S	0.0026	0.0026	DET	0.0026	mg/kg	
1992	20FEB92	C-06	S	0.0026	0.0026	DET	0.0025	mg/kg	C@

N = 8

--------- Site=Pond C MEDIA=Soils Analyte=Ethyl benzene Method=SW8240 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.05300	0.05300	DET	0.0530	mg/kg	
1992	18FEB92	C-02	S	0.00680	0.00680	DET	0.0068	mg/kg	
1992	19FEB92	C-03	S	0.00066	0.00066	DET	0.0070	mg/kg	J
1992	19FEB92	C-03	S	0.00650	0.00650	DET	0.0065	mg/kg	
1992	19FEB92	C-04	S	0.00680	0.00680	DET	0.0068	mg/kg	
1992	19FEB92	C-05	S	0.00680	0.00680	DET	0.0068	mg/kg	
1992	20FEB92	C-06	S	0.00670	0.00670	DET	0.0067	mg/kg	
1992	20FEB92	C-06	S	0.00640	0.00640	DET	0.0064	mg/kg	

N = 8

------ Site=Pond C MEDIA=Soils Analyte=Heptachlor epoxide Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.02100	0.02100	DET	0.0210	mg/kg	
1992	18FEB92	C-02	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	19FEB92	C-03	S	0.00270	0.00270	DET	0.0027	mg/kg	
1992	19FEB92	C-03	S	0.00130	0.00130	DET	0.0013	mg/kg	
1992	19FEB92	C-04	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	19FEB92	C-05	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	20FEB92	C-06	S	0.00140	0.00140	DET	0.0013	mg/kg	C@
1992	20FEB92	C-06	S	0.00083	0.00083	DET	0.0013	mg/kg	JX

N = 8

---------- Site=Pond C MEDIA=Soils Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	3.90	3.90	DET	.	mg/kg	
1990	29MAR90	C-2	S	5.30	5.30	DET	.	mg/kg	
1990	25MAR90	C-3	S	4.00	4.00	DET	.	mg/kg	
1990	29MAR90	C-4	S	3.50	3.50	DET	.	mg/kg	
1990	29MAR90	C-5	S	3.20	3.20	DET	.	mg/kg	
1990	25MAR90	C-6	S	4.40	4.40	DET	.	mg/kg	
1992	19FEB92	C-04	S	1.60	1.60	DET	0.34	mg/kg	@
1992	19FEB92	C-05	S	0.51	0.51	DET	0.29	mg/kg	@
1992	20FEB92	C-06	S	2.30	2.30	DET	0.29	mg/kg	
1992	20FEB92	C-06	S	3.30	3.30	DET	0.31	mg/kg	

N = 10

---------- Site=Pond C MEDIA=Soils Analyte=Manganese Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	150	150	DET	.	mg/kg	
1990	29MAR90	C-2	S	140	140	DET	.	mg/kg	
1990	25MAR90	C-3	S	77	77	DET	.	mg/kg	
1990	29MAR90	C-4	S	97	97	DET	.	mg/kg	
1990	29MAR90	C-5	S	88	88	DET	.	mg/kg	
1990	25MAR90	C-6	S	78	78	DET	.	mg/kg	

N = 6

------ Site=Pond C MEDIA=Soils Analyte=Methylene chloride Method=SW8240 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	.00490	0.00490	DET	.	mg/kg	JB
1990	29MAR90	C-2	S	.	0.00370	ND	0.0074	mg/kg	
1990	25MAR90	C-3	S	.00330	0.00330	DET	.	mg/kg	JB
1990	29MAR90	C-4	S	.00170	0.00170	DET	.	mg/kg	J
1990	29MAR90	C-5	S	.00150	0.00150	DET	.	mg/kg	J
1990	25MAR90	C-6	S	.00480	0.00480	DET	.	mg/kg	JB
1992	18FEB92	C-01	S	.	0.03975	ND	0.0530	mg/kg	
1992	18FEB92	C-02	S	.	0.00510	ND	0.0068	mg/kg	
1992	19FEB92	C-03	S	.	0.00525	ND	0.0070	mg/kg	
1992	19FEB92	C-03	S	.00025	0.00025	DET	0.0065	mg/kg	J
1992	19FEB92	C-04	S	.	0.00510	ND	0.0068	mg/kg	
1992	19FEB92	C-05	S	.	0.00510	ND	0.0068	mg/kg	
1992	20FEB92	C-06	S	.00400	0.00400	DET	0.0067	mg/kg	JB
1992	20FEB92	C-06	S	.	0.00480	ND	0.0064	mg/kg	

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=Molybdenum Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	.	3.00	ND	6.0	mg/kg	
1990	29MAR90	C-2	S	12	12.00	DET	.	mg/kg	@
1990	25MAR90	C-3	S	.	3.20	ND	6.4	mg/kg	
1990	29MAR90	C-4	S	.	3.05	ND	6.1	mg/kg	
1990	29MAR90	C-5	S	.	3.15	ND	6.3	mg/kg	
1990	25MAR90	C-6	S	.	3.20	ND	6.4	mg/kg	

N = 6

---------- Site=Pond C MEDIA=Soils Analyte=Nickel Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	6.2	6.20	DET	.	mg/kg	@
1990	29MAR90	C-2	S	8.3	8.30	DET	.	mg/kg	@
1990	25MAR90	C-3	S	6.1	6.10	DET	.	mg/kg	@
1990	29MAR90	C-4	S	5.0	5.00	DET	.	mg/kg	@
1990	29MAR90	C-5	S	5.8	5.80	DET	.	mg/kg	@
1990	25MAR90	C-6	S	5.6	5.60	DET	.	mg/kg	@
1992	18FEB92	C-01	S	.	3.85	ND	7.7	mg/kg	
1992	18FEB92	C-02	S	.	3.90	ND	7.8	mg/kg	
1992	19FEB92	C-03	S	.	4.40	ND	8.8	mg/kg	
1992	19FEB92	C-03	S	.	4.05	ND	8.1	mg/kg	

---------- Site=Pond C MEDIA=Soils Analyte=Nickel Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	19FEB92	C-04	S	.	4.20	ND	8.4	mg/kg	
1992	19FEB92	C-05	S	.	4.20	ND	8.4	mg/kg	
1992	20FEB92	C-06	S	.	4.45	ND	8.9	mg/kg	
1992	20FEB92	C-06	S	.	4.20	ND	8.4	mg/kg	

N = 14

--------- Site=Pond C MEDIA=Soils Analyte=Phenanthrene Method=SW8270 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	.	0.235	ND	0.47	mg/kg	
1990	29MAR90	C-2	S	0.37	0.370	DET	.	mg/kg	J
1990	25MAR90	C-3	S	.	0.220	ND	0.44	mg/kg	
1990	29MAR90	C-4	S	.	0.265	ND	0.53	mg/kg	
1990	29MAR90	C-5	S	.	0.235	ND	0.47	mg/kg	
1990	25MAR90	C-6	S	.	0.225	ND	0.45	mg/kg	

N = 6

---------- Site=Pond C MEDIA=Soils Analyte=Pyrene Method=SW8270 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	.	0.090	ND	0.18	mg/kg	
1990	29MAR90	C-2	S	.	0.100	ND	0.20	mg/kg	
1990	25MAR90	C-3	S	.	0.085	ND	0.17	mg/kg	
1990	29MAR90	C-4	S	.	0.100	ND	0.20	mg/kg	
1990	29MAR90	C-5	S	.	0.090	ND	0.18	mg/kg	
1990	25MAR90	C-6	S	0.12	0.120	DET	.	mg/kg	J

N = 6

---------- Site=Pond C MEDIA=Soils Analyte=Silicon Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	460	460	DET	.	mg/kg	@
1990	29MAR90	C-2	S	1700	1700	DET	.	mg/kg	
1990	25MAR90	C-3	S	490	490	DET	.	mg/kg	@
1990	29MAR90	C-4	S	4000	4000	DET	.	mg/kg	

---------- Site=Pond C MEDIA=Soils Analyte=Silicon Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	29MAR90	C-5	S	1800	1800	DET	.	mg/kg	
1990	25MAR90	C-6	S	530	530	DET	.	mg/kg	@

N = 6

---------- Site=Pond C MEDIA=Soils Analyte=Sulfide Method=SW9030 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	130	130	DET	31	mg/kg	@
1992	18FEB92	C-02	S	60	60	DET	34	mg/kg	@
1992	19FEB92	C-03	S	34	34	DET	34	mg/kg	
1992	19FEB92	C-03	S	31	31	DET	31	mg/kg	
1992	19FEB92	C-04	S	34	34	DET	34	mg/kg	
1992	19FEB92	C-05	S	34	34	DET	34	mg/kg	
1992	20FEB92	C-06	S	33	33	DET	33	mg/kg	
1992	20FEB92	C-06	S	32	32	DET	32	mg/kg	

N = 8

---------- Site=Pond C MEDIA=Soils Analyte=Toluene Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	.00230	.00230	DET	0.0530	mg/kg	JB
1992	18FEB92	C-02	S	.00130	.00130	DET	0.0068	mg/kg	JB
1992	19FEB92	C-03	S	.00050	.00050	DET	0.0070	mg/kg	JB
1992	19FEB92	C-03	S	.00043	.00043	DET	0.0065	mg/kg	JB
1992	19FEB92	C-04	S	.00170	.00170	DET	0.0068	mg/kg	JB
1992	19FEB92	C-05	S	.00680	.00680	DET	0.0068	mg/kg	
1992	20FEB92	C-06	S	.00049	.00049	DET	0.0067	mg/kg	J
1992	20FEB92	C-06	S	.00045	.00045	DET	0.0064	mg/kg	JB

N = 8

---------- Site=Pond C MEDIA=Soils Analyte=Vanadium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	20	20	DET	.	mg/kg	
1990	29MAR90	C-2	S	23	23	DET	.	mg/kg	

---------- Site=Pond C MEDIA=Soils Analyte=Vanadium Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	25MAR90	C-3	S	30	30.0	DET	.	mg/kg	
1990	29MAR90	C-4	S	18	18.0	DET	.	mg/kg	
1990	29MAR90	C-5	S	25	25.0	DET	.	mg/kg	
1990	25MAR90	C-6	S	20	20.0	DET	.	mg/kg	
1992	18FEB92	C-01	S	19	19.0	DET	7.7	mg/kg	@
1992	18FEB92	C-02	S	16	16.0	DET	7.8	mg/kg	@
1992	19FEB92	C-03	S	11	11.0	DET	8.8	mg/kg	@
1992	19FEB92	C-03	S	12	12.0	DET	8.1	mg/kg	@
1992	19FEB92	C-04	S	.	6.3	ND	8.4	mg/kg	
1992	19FEB92	C-05	S	.	6.3	ND	8.4	mg/kg	
1992	20FEB92	C-06	S	20	20.0	DET	8.9	mg/kg	@
1992	20FEB92	C-06	S	14	14.0	DET	8.4	mg/kg	@

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	26	26.0	DET	.	mg/kg	
1990	29MAR90	C-2	S	210	210.0	DET	.	mg/kg	
1990	25MAR90	C-3	S	24	24.0	DET	.	mg/kg	
1990	29MAR90	C-4	S	21	21.0	DET	.	mg/kg	
1990	29MAR90	C-5	S	22	22.0	DET	.	mg/kg	
1990	25MAR90	C-6	S	20	20.0	DET	.	mg/kg	
1992	18FEB92	C-01	S	14	14.0	DET	7.7	mg/kg	@
1992	18FEB92	C-02	S	10	10.0	DET	7.8	mg/kg	@
1992	19FEB92	C-03	S	11	11.0	DET	8.8	mg/kg	@
1992	19FEB92	C-03	S	12	12.0	DET	8.1	mg/kg	@
1992	19FEB92	C-04	S	.	6.3	ND	8.4	mg/kg	
1992	19FEB92	C-05	S	.	6.3	ND	8.4	mg/kg	
1992	20FEB92	C-06	S	17	17.0	DET	8.9	mg/kg	@
1992	20FEB92	C-06	S	13	13.0	DET	8.4	mg/kg	@

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=beta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.0630	0.0630	DET	0.0210	mg/kg	X@
1992	18FEB92	C-02	S	0.0020	0.0020	DET	0.0014	mg/kg	C@
1992	19FEB92	C-03	S	0.0027	0.0027	DET	0.0027	mg/kg	

---------- Site=Pond C MEDIA=Soils Analyte=beta-BHC Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	19FEB92	C-03	S	.0013	.0013	DET	.0013	mg/kg	
1992	19FEB92	C-04	S	.0014	.0014	DET	.0014	mg/kg	
1992	19FEB92	C-05	S	.0014	.0014	DET	.0014	mg/kg	
1992	20FEB92	C-06	S	.0013	.0013	DET	.0013	mg/kg	
1992	20FEB92	C-06	S	.0013	.0013	DET	.0013	mg/kg	

N = 8

-- Site=Pond C MEDIA=Soils Analyte=bis(2-Ethylhexyl)phthalate Method=SW8270 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	26MAR90	C-1	S	.	0.215	ND	0.43	mg/kg	
1990	29MAR90	C-2	S	0.50	0.500	DET	.	mg/kg	@
1990	25MAR90	C-3	S	.	0.205	ND	0.41	mg/kg	
1990	29MAR90	C-4	S	0.21	0.210	DET	.	mg/kg	J
1990	29MAR90	C-5	S	0.14	0.140	DET	.	mg/kg	J
1990	25MAR90	C-6	S	.	0.210	ND	0.42	mg/kg	
1992	18FEB92	C-01	S	1.80	1.800	DET	11.00	mg/kg	JB
1992	18FEB92	C-02	S	0.16	0.160	DET	1.40	mg/kg	JB
1992	19FEB92	C-03	S	0.16	0.160	DET	1.40	mg/kg	JB
1992	19FEB92	C-03	S	0.38	0.380	DET	1.30	mg/kg	JB
1992	19FEB92	C-04	S	.	1.050	ND	1.40	mg/kg	
1992	19FEB92	C-05	S	0.18	0.180	DET	1.40	mg/kg	JB
1992	20FEB92	C-06	S	7.90	7.900	DET	1.30	mg/kg	B
1992	20FEB92	C-06	S	0.28	0.280	DET	1.30	mg/kg	JB

N = 14

---------- Site=Pond C MEDIA=Soils Analyte=delta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	18FEB92	C-01	S	0.0210	0.0210	DET	0.0210	mg/kg	
1992	18FEB92	C-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	19FEB92	C-03	S	0.0027	0.0027	DET	0.0027	mg/kg	
1992	19FEB92	C-03	S	0.0013	0.0013	DET	0.0013	mg/kg	
1992	19FEB92	C-04	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	19FEB92	C-05	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	20FEB92	C-06	S	0.0023	0.0023	DET	0.0013	mg/kg	X@
1992	20FEB92	C-06	S	0.0013	0.0013	DET	0.0013	mg/kg	

N = 8

------- Site=Pond C MEDIA=Surface Water Analyte=Aluminum Method=SW6010 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	.	0.012	ND	0.024	mg/L	
1990	08OCT90	C-2	L	0.053	0.053	DET	.	mg/L	@
1990	08OCT90	C-3	L	.	0.012	ND	0.024	mg/L	
1990	08OCT90	C-4	L	.	0.012	ND	0.024	mg/L	
1990	08OCT90	C-5	L	.	0.012	ND	0.024	mg/L	

N = 5

-------- Site=Pond C MEDIA=Surface Water Analyte=Arsenic Method=SW7060 --------

Year	Log Date	Location IO	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	.0041	.0041	DET	.	mg/L	@
1990	08OCT90	C-2	L	.	.0015	ND	.003	mg/L	
1990	08OCT90	C-3	L	.	.0015	ND	.003	mg/L	
1990	08OCT90	C-4	L	.	.0015	ND	.003	mg/L	
1990	08OCT90	C-5	L	.0035	.0035	DET	.	mg/L	@

N = 5

-------- Site=Pond C MEDIA=Surface Water Analyte=Barium Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	0.038	0.038	DET	.	mg/L	@
1990	08OCT90	C-2	L	0.038	0.038	DET	.	mg/L	@
1990	08OCT90	C-3	L	0.027	0.027	OET	.	mg/L	@
1990	08OCT90	C-4	L	.	0.013	ND	0.026	mg/L	
1990	08OCT90	C-5	L	0.030	0.030	OET	.	mg/L	@

N = 5

--------- Site=Pond C MEDIA=Surface Water Analyte=Boron Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	0.30	0.30	DET	.	mg/L	@
1990	08OCT90	C-2	L	0.26	0.26	DET	.	mg/L	@
1990	08OCT90	C-3	L	0.18	0.18	DET	.	mg/L	@
1990	08OCT90	C-4	L	0.17	0.17	DET	.	mg/L	@
1990	08OCT90	C-5	L	0.21	0.21	DET	.	mg/L	@

N = 5

------ Site=Pond C MEDIA=Surface Water Analyte=Chromium VI Method=SW7196 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	.	0.0001	ND	.0002	mg/L	
1990	08OCT90	C-2	L	0.014	0.0140	DET	.	mg/L	
1990	08OCT90	C-3	L	0.013	0.0130	DET	.	mg/L	
1990	08OCT90	C-4	L	.	0.0001	ND	.0002	mg/L	
1990	08OCT90	C-5	L	.	0.0001	ND	.0002	mg/L	

N = 5

--------- Site=Pond C MEDIA=Surface Water Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	.0045	.0045	DET	.	mg/L	@
1990	08OCT90	C-2	L	.0045	.0045	DET	.	mg/L	@
1990	08OCT90	C-3	L	.0073	.0073	DET	.	mg/L	@
1990	08OCT90	C-4	L	.0051	.0051	DET	.	mg/L	@
1990	08OCT90	C-5	L	.0058	.0058	DET	.	mg/L	@

N = 5

------- Site=Pond C MEDIA=Surface Water Analyte=Magnesium Method=SW6010 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	170	170	DET	.	mg/L	
1990	08OCT90	C-2	L	170	170	DET	.	mg/L	
1990	08OCT90	C-3	L	120	120	DET	.	mg/L	
1990	08OCT90	C-4	L	120	120	DET	.	mg/L	
1990	08OCT90	C-5	L	140	140	DET	.	mg/L	

N = 5

------- Site=Pond C MEDIA=Surface Water Analyte=Manganese Method=SW6010 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	0.076	0.076	DET	.	mg/L	
1990	08OCT90	C-2	L	0.077	0.077	DET	.	mg/L	
1990	08OCT90	C-3	L	0.056	0.056	DET	.	mg/L	
1990	08OCT90	C-4	L	0.053	0.053	DET	.	mg/L	
1990	08OCT90	C-5	L	0.063	0.063	DET	.	mg/L	

N = 5

-------- Site=Pond C MEDIA=Surface Water Analyte=Silicon Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	16	16	DET	.	mg/L	
1990	08OCT90	C-2	L	16	16	DET	.	mg/L	
1990	08OCT90	C-3	L	11	11	DET	.	mg/L	
1990	08OCT90	C-4	L	11	11	DET	.	mg/L	
1990	08OCT90	C-5	L	13	13	DET	.	mg/L	

N = 5

------- Site=Pond C MEDIA=Surface Water Analyte=Vanadium Method=SW6010 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	.0062	.0062	DET	.	mg/L	@
1990	08OCT90	C-2	L	.0078	.0078	DET	.	mg/L	@
1990	08OCT90	C-3	L	.0056	.0056	DET	.	mg/L	@
1990	08OCT90	C-4	L	.0049	.0049	DET	.	mg/L	@
1990	08OCT90	C-5	L	.0054	.0054	DET	.	mg/L	@

N = 5

--------- Site=Pond C MEDIA=Surface Water Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	0.012	0.0120	DET	.	mg/L	@
1990	08OCT90	C-2	L	0.013	0.0130	DET	.	mg/L	@
1990	08OCT90	C-3	L	.	0.0015	ND	.003	mg/L	
1990	08OCT90	C-4	L	.	0.0015	ND	.003	mg/L	
1990	08OCT90	C-5	L	.	0.0015	ND	.003	mg/L	

N = 5

------- Site=Pond C MEDIA=Surface Water Analyte=beta-BHC Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	.00003	.00003	DET	.	mg/L	J

N = 1

Site=Pond C MEDIA=Surface Water Analyte=bis(2-Ethylhexyl)phthalate Method=SW827

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	C-1	L	.004	.004	DET	.	mg/L	J
1990	08OCT90	C-2	L	.004	.004	DET	.	mg/L	J

N = 2

---------- Site=Pond D MEDIA=Sludges Analyte=4,4'-DDD Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	0.00100	0.00100	DET	0.0074	mg/kg	VJ
1994	28OCT94	02D	S	0.00240	0.00240	DET	0.0066	mg/kg	VJ
1994	29OCT94	03D	S	0.00630	0.00630	DET	0.0065	mg/kg	J
1994	28OCT94	04D	S	.	0.00001	ND	0.0110	mg/kg	
1994	29OCT94	05D	S	0.00097	0.00097	DET	0.0095	mg/kg	J
1994	29OCT94	06D	S	0.03200	0.03200	DET	0.0300	mg/kg	V
1994	28OCT94	07D	S	0.00360	0.00360	DET	0.0055	mg/kg	VJ
1994	28OCT94	08D	S	0.00270	0.00270	DET	0.0190	mg/kg	J
1994	28OCT94	09D	S	0.00750	0.00750	DET	0.0200	mg/kg	VJ
1994	28OCT94	10D	S	0.01900	0.01900	DET	0.0190	mg/kg	V
1995	08MAR95	01D	S	0.00065	0.00065	DET	0.0100	mg/kg	J
1995	08MAR95	02D	S	0.00310	0.00310	DET	0.0160	mg/kg	J
1995	08MAR95	03D	S	0.13000	0.13000	DET	0.0340	mg/kg	
1995	08MAR95	04D	S	0.05400	0.05400	DET	0.0180	mg/kg	
1995	08MAR95	05D	S	0.01500	0.01500	DET	0.0190	mg/kg	J
1995	08MAR95	06D	S	0.00560	0.00560	DET	0.0200	mg/kg	J

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=4,4'-DDE Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	0.00031	0.000310	DET	0.0074	mg/kg	J
1994	28OCT94	02D	S	0.00088	0.000880	DET	0.0066	mg/kg	J
1994	29OCT94	03D	S	0.00380	0.003800	DET	0.0065	mg/kg	J
1994	28OCT94	04D	S	.	0.000297	ND	0.0110	mg/kg	
1994	29OCT94	05D	S	.	0.000026	ND	0.0095	mg/kg	
1994	29OCT94	06D	S	0.01400	0.014000	DET	0.0300	mg/kg	VJ
1994	28OCT94	07D	S	0.00120	0.001200	DET	0.0055	mg/kg	J
1994	28OCT94	08D	S	0.00290	0.002900	DET	0.0190	mg/kg	VJ
1994	28OCT94	09D	S	0.00440	0.004400	DET	0.0200	mg/kg	J
1994	28OCT94	10D	S	0.00740	0.007400	DET	0.0190	mg/kg	J
1995	08MAR95	01D	S	0.00031	0.000310	DET	0.0100	mg/kg	J
1995	08MAR95	02D	S	0.00150	0.001500	DET	0.0160	mg/kg	J

---------- Site=Pond D MEDIA=Sludges Analyte=4,4'-DDE Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	08MAR95	03D	S	0.0330	0.0330	DET	0.034	mg/kg	J
1995	08MAR95	04D	S	0.0098	0.0098	DET	0.018	mg/kg	J
1995	08MAR95	05D	S	0.0040	0.0040	DET	0.019	mg/kg	J
1995	08MAR95	06D	S	0.0041	0.0041	DET	0.020	mg/kg	J

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=4,4'-DDT Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	.	0.000536	ND	0.0074	mg/kg	
1994	28OCT94	02D	S	0.0061	0.006100	DET	0.0066	mg/kg	J
1994	29OCT94	03D	S	0.0076	0.007600	DET	0.0065	mg/kg	
1994	28OCT94	04D	S	.	0.000442	ND	0.0110	mg/kg	
1994	29OCT94	05D	S	0.0022	0.002200	DET	0.0095	mg/kg	J
1994	29OCT94	06D	S	0.0970	0.097000	DET	0.0300	mg/kg	
1994	28OCT94	07D	S	0.0018	0.001800	DET	0.0055	mg/kg	J
1994	28OCT94	08D	S	.	0.001396	ND	0.0190	mg/kg	
1994	28OCT94	09D	S	.	0.000246	ND	0.0200	mg/kg	V
1994	28OCT94	10D	S	0.0260	0.026000	DET	0.0190	mg/kg	
1995	08MAR95	01D	S	.	0.000215	ND	0.0100	mg/kg	
1995	08MAR95	02D	S	0.0036	0.003600	DET	0.0160	mg/kg	VJ
1995	08MAR95	03D	S	0.0010	0.001000	DET	0.0340	mg/kg	J
1995	08MAR95	04D	S	0.0510	0.051000	DET	0.0180	mg/kg	
1995	08MAR95	05D	S	0.0016	0.001600	DET	0.0190	mg/kg	VJ
1995	08MAR95	06D	S	0.0010	0.001000	DET	0.0200	mg/kg	J

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=Aldrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	08MAR95	01D	S	.00026	.00026000	DET	0.0054	mg/kg	TJ
1995	08MAR95	02D	S	.	.00007641	ND	0.0080	mg/kg	T
1995	08MAR95	03D	S	.	.00012452	ND	0.0170	mg/kg	T
1995	08MAR95	04D	S	.	.00019298	ND	0.0092	mg/kg	T
1995	08MAR95	05D	S	.	.00016608	ND	0.0096	mg/kg	T
1995	08MAR95	06D	S	.	.00011214	ND	0.0100	mg/kg	T

N = 6

---------- Site=Pond D MEDIA=Sludges Analyte=Arsenic Method=SW7060 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	0.83	0.83000	DET	1.1	mg/kg	J
1994	28OCT94	02D	S	0.85	0.85000	DET	1.0	mg/kg	J
1994	29OCT94	03D	S	1.30	1.30000	DET	2.0	mg/kg	J
1994	28OCT94	04D	S	1.70	1.70000	DET	3.5	mg/kg	J
1994	29OCT94	05D	S	2.90	2.90000	DET	2.9	mg/kg	
1994	29OCT94	06D	S	3.70	3.70000	DET	4.5	mg/kg	J
1994	28OCT94	07D	S	1.10	1.10000	DET	1.7	mg/kg	J
1994	28OCT94	08D	S	2.60	2.60000	DET	5.7	mg/kg	J
1994	28OCT94	09D	S	.	0.58867	ND	3.0	mg/kg	
1994	28OCT94	10D	S	.	0.43902	ND	5.8	mg/kg	
1995	08MAR95	01D	S	1.50	1.50000	DET	1.6	mg/kg	J
1995	08MAR95	02D	S	2.00	2.00000	DET	2.4	mg/kg	J
1995	08MAR95	03D	S	1.70	1.70000	DET	1.3	mg/kg	
1995	08MAR95	04D	S	2.30	2.30000	DET	2.7	mg/kg	J
1995	08MAR95	05D	S	2.50	2.50000	DET	2.8	mg/kg	J
1995	08MAR95	06D	S	1.80	1.80000	DET	3.0	mg/kg	J

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=Barium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	44.2	44.2	DET	2.2	mg/kg	
1994	28OCT94	02D	S	55.5	55.5	DET	2.0	mg/kg	
1994	29OCT94	03D	S	18.9	18.9	DET	2.0	mg/kg	
1994	28OCT94	04D	S	38.1	38.1	DET	3.5	mg/kg	
1994	29OCT94	05D	S	53.1	53.1	DET	2.9	mg/kg	
1994	29OCT94	06D	S	61.6	61.6	DET	8.9	mg/kg	
1994	28OCT94	07D	S	31.9	31.9	DET	1.7	mg/kg	
1994	28OCT94	08D	S	91.7	91.7	DET	5.7	mg/kg	
1994	28OCT94	09D	S	67.1	67.1	DET	6.0	mg/kg	
1994	28OCT94	10D	S	47.3	47.3	DET	5.8	mg/kg	
1995	08MAR95	01D	S	32.7	32.7	DET	3.2	mg/kg	
1995	08MAR95	02D	S	50.3	50.3	DET	4.7	mg/kg	
1995	08MAR95	03D	S	47.2	47.2	DET	2.5	mg/kg	
1995	08MAR95	04D	S	74.0	74.0	DET	5.4	mg/kg	
1995	08MAR95	05D	S	88.9	88.9	DET	5.7	mg/kg	
1995	08MAR95	06D	S	56.9	56.9	DET	6.1	mg/kg	

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=Beryllium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	.	0.06257	ND	0.45	mg/kg	
1994	28OCT94	02D	S	0.23	0.23000	DET	0.40	mg/kg	J
1994	29OCT94	03D	S	.	0.18879	ND	0.40	mg/kg	
1994	28OCT94	04D	S	.	0.01542	ND	0.69	mg/kg	
1994	29OCT94	05D	S	.	0.17146	ND	0.58	mg/kg	
1994	29OCT94	06D	S	.	0.09496	ND	1.80	mg/kg	
1994	28OCT94	07D	S	.	0.21249	ND	0.33	mg/kg	
1994	28OCT94	08D	S	.	0.05886	ND	1.10	mg/kg	
1994	28OCT94	09D	S	.	0.00454	ND	1.20	mg/kg	
1994	28OCT94	10D	S	.	0.21470	ND	1.20	mg/kg	
1995	08MAR95	01D	S	0.42	0.42000	DET	0.64	mg/kg	J
1995	08MAR95	02D	S	0.63	0.63000	DET	0.94	mg/kg	J
1995	08MAR95	03D	S	0.33	0.33000	DET	0.51	mg/kg	J
1995	08MAR95	04D	S	0.71	0.71000	DET	1.10	mg/kg	J
1995	08MAR95	05D	S	0.74	0.74000	DET	1.10	mg/kg	J
1995	08MAR95	06D	S	0.81	0.81000	DET	1.20	mg/kg	J

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=Chlordane Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	08MAR95	01D	S	.	.0010118	ND	0.054	mg/kg	V
1995	08MAR95	02D	S	.	.0012240	ND	0.080	mg/kg	
1995	08MAR95	03D	S	.0014	.0014000	DET	0.170	mg/kg	VJ
1995	08MAR95	04D	S	.0081	.0081000	DET	0.092	mg/kg	VJ
1995	08MAR95	05D	S	.	.0010316	ND	0.096	mg/kg	
1995	08MAR95	06D	S	.	.0010592	ND	0.100	mg/kg	

N = 6

---------- Site=Pond D MEDIA=Sludges Analyte=Chromium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	4.1	4.10000	DET	2.2	mg/kg	
1994	28OCT94	02D	S	5.1	5.10000	DET	2.0	mg/kg	
1994	29OCT94	03D	S	1.2	1.20000	DET	2.0	mg/kg	J
1994	28OCT94	04D	S	2.4	2.40000	DET	3.5	mg/kg	J
1994	29OCT94	05D	S	2.5	2.50000	DET	2.9	mg/kg	J
1994	29OCT94	06D	S	.	1.13700	ND	8.9	mg/kg	
1994	28OCT94	07D	S	1.8	1.80000	DET	1.7	mg/kg	
1994	28OCT94	08D	S	6.9	6.90000	DET	5.7	mg/kg	

---------- Site=Pond D MEDIA=Sludges Analyte=Chromium Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	09D	S	5.0	5.00000	DET	6.0	mg/kg	J
1994	28OCT94	10D	S	.	0.26543	ND	5.8	mg/kg	
1995	08MAR95	01D	S	3.6	3.60000	DET	3.2	mg/kg	
1995	08MAR95	02D	S	5.3	5.30000	DET	4.7	mg/kg	
1995	08MAR95	03D	S	5.2	5.20000	DET	2.5	mg/kg	
1995	08MAR95	04D	S	9.8	9.80000	DET	5.4	mg/kg	
1995	08MAR95	05D	S	7.4	7.40000	DET	5.7	mg/kg	
1995	08MAR95	06D	S	4.9	4.90000	DET	6.1	mg/kg	J

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=Cobalt Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	1.2	1.20000	DET	2.2	mg/kg	J
1994	28OCT94	02D	S	2.1	2.10000	DET	2.0	mg/kg	
1994	29OCT94	03D	S	.	0.61374	ND	2.0	mg/kg	
1994	28OCT94	04D	S	1.1	1.10000	DET	3.5	mg/kg	J
1994	29OCT94	05D	S	1.3	1.30000	DET	2.9	mg/kg	J
1994	29OCT94	06D	S	3.5	3.50000	DET	8.9	mg/kg	J
1994	28OCT94	07D	S	1.2	1.20000	DET	1.7	mg/kg	J
1994	28OCT94	08D	S	4.4	4.40000	DET	5.7	mg/kg	J
1994	28OCT94	09D	S	4.3	4.30000	DET	6.0	mg/kg	J
1994	28OCT94	10D	S	.	0.05651	ND	5.8	mg/kg	
1995	08MAR95	01D	S	2.5	2.50000	DET	3.2	mg/kg	J
1995	08MAR95	02D	S	2.3	2.30000	DET	4.7	mg/kg	J
1995	08MAR95	03D	S	2.5	2.50000	DET	2.5	mg/kg	
1995	08MAR95	04D	S	5.3	5.30000	DET	5.4	mg/kg	J
1995	08MAR95	05D	S	3.4	3.40000	DET	5.7	mg/kg	J
1995	08MAR95	06D	S	2.6	2.60000	DET	6.1	mg/kg	J

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=Copper Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	6.3	6.3	DET	4.5	mg/kg	
1994	28OCT94	02D	S	9.2	9.2	DET	4.0	mg/kg	
1994	29OCT94	03D	S	2.8	2.8	DET	4.0	mg/kg	J
1994	28OCT94	04D	S	14.0	14.0	DET	6.9	mg/kg	
1994	29OCT94	05D	S	10.1	10.1	DET	5.8	mg/kg	

---------- Site=Pond D MEDIA=Sludges Analyte=Copper Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	29OCT94	06D	S	35.5	35.5	DET	17.9	mg/kg	
1994	28OCT94	07D	S	4.9	4.9	DET	3.3	mg/kg	
1994	28OCT94	08D	S	28.4	28.4	DET	11.5	mg/kg	
1994	28OCT94	09D	S	33.1	33.1	DET	12.1	mg/kg	
1994	28OCT94	10D	S	28.1	28.1	DET	11.6	mg/kg	
1995	08MAR95	01D	S	15.0	15.0	DET	6.4	mg/kg	
1995	08MAR95	02D	S	18.8	18.8	DET	9.4	mg/kg	
1995	08MAR95	03D	S	11.6	11.6	DET	5.1	mg/kg	
1995	08MAR95	04D	S	44.4	44.4	DET	10.8	mg/kg	
1995	08MAR95	05D	S	19.2	19.2	DET	11.3	mg/kg	
1995	08MAR95	06D	S	23.6	23.6	DET	12.1	mg/kg	

N = 16

-------- Site=Pond D MEDIA=Sludges Analyte=Endosulfan II Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	08MAR95	01D	S	.	.0010646	ND	0.010	mg/kg	
1995	08MAR95	02D	S	.	.0006364	ND	0.016	mg/kg	
1995	08MAR95	03D	S	.	.0001625	ND	0.034	mg/kg	
1995	08MAR95	04D	S	.0029	.0029000	DET	0.018	mg/kg	J
1995	08MAR95	05D	S	.0020	.0020000	DET	0.019	mg/kg	J
1995	08MAR95	06D	S	.	.0007572	ND	0.020	mg/kg	

N = 6

----- Site=Pond D MEDIA=Sludges Analyte=Endosulfan Sulfate Method=SW8080 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag
1994	28OCT94	01D	S	.	.0000000017	ND
1994	28OCT94	02D	S	.	.0000003866	ND
1994	29OCT94	03D	S	.	.0000010132	ND
1994	28OCT94	04D	S	.	.0000007425	ND
1994	29OCT94	05D	S	.	.0000002095	ND
1994	29OCT94	06D	S	.	.0000005829	ND
1994	28OCT94	07D	S	.0000012	.0000012000	DET
1994	28OCT94	08D	S	.	.0000003528	ND
1994	28OCT94	09D	S	.	.0000010078	ND
1994	28OCT94	10D	S	.	.0000001582	ND

Year	Log Date	Location ID	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	0.0074	mg/kg	
1994	28OCT94	02D	0.0066	mg/kg	
1994	29OCT94	03D	0.0065	mg/kg	
1994	28OCT94	04D	0.0110	mg/kg	
1994	29OCT94	05D	0.0095	mg/kg	
1994	29OCT94	06D	0.0300	mg/kg	
1994	28OCT94	07D	0.0055	mg/kg	J
1994	28OCT94	08D	0.0190	mg/kg	
1994	28OCT94	09D	0.0200	mg/kg	
1994	28OCT94	10D	0.0190	mg/kg	

N = 10

---------- Site=Pond D MEDIA=Sludges Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	1.20	1.20	DET	4.5	mg/kg	J
1994	28OCT94	02D	S	0.44	0.44	DET	4.0	mg/kg	J
1994	29OCT94	03D	S	0.93	0.93	DET	2.0	mg/kg	J
1994	28OCT94	04D	S	1.30	1.30	DET	3.5	mg/kg	J
1994	29OCT94	05D	S	1.20	1.20	DET	2.9	mg/kg	J

---------- Site=Pond D MEDIA=Sludges Analyte=Lead Method=SW7421 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	29OCT94	06D	S	3.4	3.4	DET	4.5	mg/kg	J
1994	28OCT94	07D	S	1.1	1.1	DET	3.3	mg/kg	J
1994	28OCT94	08D	S	6.0	6.0	DET	14.3	mg/kg	J
1994	28OCT94	09D	S	4.1	4.1	DET	12.1	mg/kg	J
1994	28OCT94	10D	S	4.3	4.3	DET	5.8	mg/kg	J
1995	08MAR95	01D	S	2.4	2.4	DET	3.2	mg/kg	J
1995	08MAR95	02D	S	3.1	3.1	DET	4.7	mg/kg	J
1995	08MAR95	03D	S	3.1	3.1	DET	6.4	mg/kg	J
1995	08MAR95	04D	S	31.4	31.4	DET	2.7	mg/kg	
1995	08MAR95	05D	S	3.3	3.3	DET	2.8	mg/kg	
1995	08MAR95	06D	S	3.4	3.4	DET	6.1	mg/kg	J

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=Nickel Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	3.4	3.40000	DET	9.0	mg/kg	J
1994	28OCT94	02D	S	4.9	4.90000	DET	8.1	mg/kg	J
1994	29OCT94	03D	S	2.0	2.00000	DET	7.9	mg/kg	J
1994	28OCT94	04D	S	3.0	3.00000	DET	13.8	mg/kg	J
1994	29OCT94	05D	S	2.7	2.70000	DET	11.6	mg/kg	J
1994	29OCT94	06D	S	6.4	6.40000	DET	35.8	mg/kg	J
1994	28OCT94	07D	S	2.2	2.20000	DET	6.6	mg/kg	J
1994	28OCT94	08D	S	8.1	8.10000	DET	22.9	mg/kg	J
1994	28OCT94	09D	S	6.0	6.00000	DET	24.2	mg/kg	J
1994	28OCT94	10D	S	.	0.01207	ND	23.3	mg/kg	
1995	08MAR95	01D	S	.	0.67140	ND	12.7	mg/kg	
1995	08MAR95	02D	S	.	1.00671	ND	18.8	mg/kg	
1995	08MAR95	03D	S	3.3	3.30000	DET	10.2	mg/kg	J
1995	08MAR95	04D	S	.	0.63984	ND	21.6	mg/kg	
1995	08MAR95	05D	S	4.6	4.60000	DET	22.7	mg/kg	J
1995	08MAR95	06D	S	.	3.05042	ND	24.3	mg/kg	

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=Selenium Method=SW7740 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	0.36	0.36	DET	1.1	mg/kg	J
1994	28OCT94	02D	S	0.26	0.26	DET	2.0	mg/kg	J

---------- Site=Pond D MEDIA=Sludges Analyte=Selenium Method=SW7740 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	29OCT94	03D	S	.	0.06738	ND	2.00	mg/kg	
1994	28OCT94	04D	S	0.73	0.73000	DET	3.50	mg/kg	J
1994	29OCT94	05D	S	.	0.03039	ND	2.90	mg/kg	
1994	29OCT94	06D	S	1.30	1.30000	DET	4.50	mg/kg	J
1994	28OCT94	07D	S	0.18	0.18000	DET	0.83	mg/kg	J
1994	28OCT94	08D	S	1.80	1.80000	DET	5.70	mg/kg	J
1994	28OCT94	09D	S	1.30	1.30000	DET	3.00	mg/kg	J
1994	28OCT94	10D	S	1.60	1.60000	DET	5.80	mg/kg	J
1995	08MAR95	01D	S	0.64	0.64000	DET	1.60	mg/kg	J
1995	08MAR95	02D	S	0.52	0.52000	DET	2.40	mg/kg	J
1995	08MAR95	03D	S	.	0.48017	ND	1.30	mg/kg	
1995	08MAR95	04D	S	1.10	1.10000	DET	2.70	mg/kg	J
1995	08MAR95	05D	S	0.79	0.79000	DET	2.80	mg/kg	J
1995	08MAR95	06D	S	0.73	0.73000	DET	3.00	mg/kg	J

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=Silver Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	.	0.6160	ND	2.2	mg/kg	
1994	28OCT94	02D	S	1.40	1.4000	DET	2.0	mg/kg	J
1994	29OCT94	03D	S	1.00	1.0000	DET	2.0	mg/kg	J
1994	28OCT94	04D	S	3.30	3.3000	DET	3.5	mg/kg	J
1994	29OCT94	05D	S	2.40	2.4000	DET	2.9	mg/kg	J
1994	29OCT94	06D	S	6.00	6.0000	DET	8.9	mg/kg	J
1994	28OCT94	07D	S	0.99	0.9900	DET	1.7	mg/kg	J
1994	28OCT94	08D	S	5.10	5.1000	DET	5.7	mg/kg	J
1994	28OCT94	09D	S	7.50	7.5000	DET	6.0	mg/kg	
1994	28OCT94	10D	S	7.30	7.3000	DET	5.8	mg/kg	
1995	08MAR95	01D	S	2.60	2.6000	DET	3.2	mg/kg	J
1995	08MAR95	02D	S	4.40	4.4000	DET	4.7	mg/kg	J
1995	08MAR95	03D	S	2.30	2.3000	DET	2.5	mg/kg	J
1995	08MAR95	04D	S	12.40	12.4000	DET	5.4	mg/kg	
1995	08MAR95	05D	S	.	1.8977	ND	5.7	mg/kg	
1995	08MAR95	06D	S	6.80	6.8000	DET	6.1	mg/kg	

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=Thallium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	.	0.69531	ND	2.2	mg/kg	
1994	28OCT94	02D	S	.	0.74116	ND	2.0	mg/kg	
1994	29OCT94	03D	S	.	0.74491	ND	2.0	mg/kg	
1994	28OCT94	04D	S	.	0.22966	ND	3.5	mg/kg	
1994	29OCT94	05D	S	1.2	1.20000	DET	2.9	mg/kg	J
1994	29OCT94	06D	S	.	0.39224	ND	8.9	mg/kg	
1994	28OCT94	07D	S	.	1.15474	ND	1.7	mg/kg	
1994	28OCT94	08D	S	.	0.35345	ND	5.7	mg/kg	
1994	28OCT94	09D	S	.	0.65066	ND	6.0	mg/kg	
1994	28OCT94	10D	S	.	0.53782	ND	5.8	mg/kg	

N = 10

---------- Site=Pond D MEDIA=Sludges Analyte=Tin Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	08MAR95	01D	S	.	5.1682	ND	31.8	mg/kg	
1995	08MAR95	02D	S	.	5.1290	ND	47.1	mg/kg	
1995	08MAR95	03D	S	.	9.7919	ND	25.5	mg/kg	
1995	08MAR95	04D	S	12.9	12.9000	DET	54.1	mg/kg	J
1995	08MAR95	05D	S	.	3.6525	ND	56.7	mg/kg	
1995	08MAR95	06D	S	14.0	14.0000	DET	60.6	mg/kg	J

N = 6

---------- Site=Pond D MEDIA=Sludges Analyte=Vanadium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	15.7	15.7	DET	2.2	mg/kg	
1994	28OCT94	02D	S	19.5	19.5	DET	2.0	mg/kg	
1994	29OCT94	03D	S	4.3	4.3	DET	2.0	mg/kg	
1994	28OCT94	04D	S	11.3	11.3	DET	3.5	mg/kg	
1994	29OCT94	05D	S	10.6	10.6	DET	2.9	mg/kg	
1994	29OCT94	06D	S	21.4	21.4	DET	8.9	mg/kg	
1994	28OCT94	07D	S	6.8	6.8	DET	1.7	mg/kg	
1994	28OCT94	08D	S	24.9	24.9	DET	5.7	mg/kg	
1994	28OCT94	09D	S	20.6	20.6	DET	6.0	mg/kg	
1994	28OCT94	10D	S	15.8	15.8	DET	5.8	mg/kg	
1995	08MAR95	01D	S	12.3	12.3	DET	3.2	mg/kg	
1995	08MAR95	02D	S	16.5	16.5	DET	4.7	mg/kg	
1995	08MAR95	03D	S	15.3	15.3	DET	2.5	mg/kg	
1995	08MAR95	04D	S	27.5	27.5	DET	5.4	mg/kg	

---------- Site=Pond D MEDIA=Sludges Analyte=Vanadium Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	08MAR95	05D	S	27.0	27.0	DET	5.7	mg/kg	
1995	08MAR95	06D	S	20.5	20.5	DET	6.1	mg/kg	

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	14.0	14.0	DET	4.5	mg/kg	
1994	28OCT94	02D	S	20.6	20.6	DET	4.0	mg/kg	
1994	29OCT94	03D	S	7.4	7.4	DET	4.0	mg/kg	
1994	28OCT94	04D	S	25.5	25.5	DET	6.9	mg/kg	
1994	29OCT94	05D	S	17.5	17.5	DET	5.8	mg/kg	
1994	29OCT94	06D	S	49.5	49.5	DET	17.9	mg/kg	
1994	28OCT94	07D	S	10.0	10.0	DET	3.3	mg/kg	
1994	28OCT94	08D	S	53.6	53.6	DET	11.5	mg/kg	
1994	28OCT94	09D	S	49.7	49.7	DET	12.1	mg/kg	
1994	28OCT94	10D	S	40.2	40.2	DET	11.6	mg/kg	
1995	08MAR95	01D	S	24.5	24.5	DET	6.4	mg/kg	
1995	08MAR95	02D	S	32.8	32.8	DET	9.4	mg/kg	
1995	08MAR95	03D	S	27.2	27.2	DET	5.1	mg/kg	
1995	08MAR95	04D	S	60.7	60.7	DET	10.8	mg/kg	
1995	08MAR95	05D	S	36.4	36.4	DET	11.3	mg/kg	
1995	08MAR95	06D	S	42.2	42.2	DET	12.1	mg/kg	

N = 16

---------- Site=Pond D MEDIA=Sludges Analyte=alpha-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1995	08MAR95	01D	S	.00038	.0003800	DET	0.0054	mg/kg	J
1995	08MAR95	02D	S	.	.0001907	ND	0.0080	mg/kg	
1995	08MAR95	03D	S	.	.0001384	ND	0.0170	mg/kg	
1995	08MAR95	04D	S	.00038	.0003800	DET	0.0092	mg/kg	J
1995	08MAR95	05D	S	.00160	.0016000	DET	0.0096	mg/kg	J
1995	08MAR95	06D	S	.00170	.0017000	DET	0.0100	mg/kg	J

N = 6

---------- Site=Pond D MEDIA=Sludges Analyte=delta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	28OCT94	01D	S	.00051	.0005100	DET	0.0038	mg/kg	J
1994	28OCT94	02D	S	.00063	.0006300	DET	0.0034	mg/kg	VJ
1994	29OCT94	03D	S	.	.0001470	ND	0.0034	mg/kg	
1994	28OCT94	04D	S	.00020	.0002000	DET	0.0059	mg/kg	JV
1994	29OCT94	05D	S	.	.0000512	ND	0.0049	mg/kg	
1994	29OCT94	06D	S	.00070	.0007000	DET	0.0150	mg/kg	VJ
1994	28OCT94	07D	S	.	.0001141	ND	0.0028	mg/kg	
1994	28OCT94	08D	S	.	.0000678	ND	0.0097	mg/kg	
1994	28OCT94	09D	S	.00065	.0006500	DET	0.0100	mg/kg	VJ
1994	28OCT94	10D	S	.00270	.0027000	DET	0.0099	mg/kg	VJ

N = 10

---------- Site=Pond D MEDIA=Soils Analyte=2-Hexanone Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	12FEB92	BH-02	S	.004	.004	DET	0.069	mg/kg	JB

N = 1

------- Site=Pond D MEDIA=Soils Analyte=3-Methyl pentane Method=SW8240 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	12FEB92	BH-02	S	0.02	0.02	DET	.	mg/kg	

N = 1

---------- Site=Pond D MEDIA=Soils Analyte=4,4'-DDD Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	0.00315	0.00315	DET	0.0015	mg/kg	X@
1992	25FEB92	D-01	S	0.00135	0.00135	DET	0.0014	mg/kg	
1992	25FEB92	D-02	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	25FEB92	D-03	S	0.00130	0.00130	DET	0.0013	mg/kg	
1992	25FEB92	D-03	S	0.00130	0.00130	DET	0.0013	mg/kg	
1992	25FEB92	D-04	S	0.24000	0.24000	DET	0.0130	mg/kg	C
1992	25FEB92	D-05	S	0.00360	0.00360	DET	0.0014	mg/kg	C@
1992	25FEB92	D-05	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	25FEB92	D-06	S	0.00130	0.00130	DET	0.0013	mg/kg	

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=4,4'-DDE Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	0.00150	0.00150	DET	0.0015	mg/kg	
1992	25FEB92	D-01	S	0.00135	0.00135	DET	0.0014	mg/kg	
1992	25FEB92	D-02	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	25FEB92	D-03	S	0.00130	0.00130	DET	0.0013	mg/kg	
1992	25FEB92	D-03	S	0.00130	0.00130	DET	0.0013	mg/kg	
1992	25FEB92	D-04	S	0.03500	0.03500	DET	0.0130	mg/kg	X@
1992	25FEB92	D-05	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	25FEB92	D-05	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	25FEB92	D-06	S	0.00130	0.00130	DET	0.0013	mg/kg	

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=4,4'-DDT Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	0.00300	0.00300	DET	0.0030	mg/kg	
1992	25FEB92	D-01	S	0.00265	0.00265	DET	0.0027	mg/kg	
1992	25FEB92	D-02	S	0.00280	0.00280	DET	0.0028	mg/kg	
1992	25FEB92	D-03	S	0.00260	0.00260	DET	0.0026	mg/kg	
1992	25FEB92	D-03	S	0.00520	0.00520	DET	0.0027	mg/kg	X@
1992	25FEB92	D-04	S	0.05200	0.05200	DET	0.0260	mg/kg	C@
1992	25FEB92	D-05	S	0.00270	0.00270	DET	0.0027	mg/kg	
1992	25FEB92	D-05	S	0.00340	0.00340	DET	0.0027	mg/kg	X@
1992	25FEB92	D-06	S	0.00270	0.00270	DET	0.0027	mg/kg	

N = 9

-- Site=Pond D MEDIA=Soils Analyte=4-Hydroxy-4-methyl-2-penta Method=SW8270 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	13	13	DET	.	mg/kg	

N = 1

---------- Site=Pond D MEDIA=Soils Analyte=Acetone Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	.	0.11250	ND	0.15	mg/kg	
1992	25FEB92	D-01	S	.	0.07733	ND	0.14	mg/kg	

---------- Site=Pond D MEDIA=Soils Analyte=Acetone Method=SW8240 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-02	S	.	0.1050	ND	0.14	mg/kg	
1992	25FEB92	D-03	S	.	0.0975	ND	0.13	mg/kg	
1992	25FEB92	D-03	S	.	0.0975	ND	0.13	mg/kg	
1992	25FEB92	D-04	S	.	0.0975	ND	0.13	mg/kg	
1992	25FEB92	D-05	S	0.050	0.0500	DET	0.14	mg/kg	J
1992	25FEB92	D-05	S	.	0.1050	ND	0.14	mg/kg	
1992	25FEB92	D-06	S	0.035	0.0350	DET	0.13	mg/kg	J

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=Arsenic Method=SW7060 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	0.795	0.795	DET	0.51	mg/kg	@
1992	25FEB92	D-01	S	2.800	2.800	DET	0.46	mg/kg	
1992	25FEB92	D-02	S	0.800	0.800	DET	0.47	mg/kg	@
1992	25FEB92	D-03	S	0.780	0.780	DET	0.41	mg/kg	@
1992	25FEB92	D-03	S	0.780	0.780	DET	0.43	mg/kg	@
1992	25FEB92	D-04	S	0.900	0.900	DET	0.43	mg/kg	@
1992	25FEB92	D-05	S	0.900	0.900	DET	0.38	mg/kg	@
1992	25FEB92	D-05	S	1.200	1.200	DET	0.48	mg/kg	@
1992	25FEB92	D-06	S	2.100	2.100	DET	0.44	mg/kg	@

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=Barium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	12FEB92	BH-02	S	30.0	30.0	DET	3.9	mg/kg	
1992	25FEB92	D-01	S	29.0	29.0	DET	4.8	mg/kg	
1992	25FEB92	D-01	S	74.5	74.5	DET	4.3	mg/kg	
1992	25FEB92	D-02	S	23.0	23.0	DET	4.5	mg/kg	
1992	25FEB92	D-03	S	21.0	21.0	DET	4.1	mg/kg	
1992	25FEB92	D-03	S	64.0	64.0	DET	3.8	mg/kg	
1992	25FEB92	D-04	S	44.0	44.0	DET	3.5	mg/kg	
1992	25FEB92	D-05	S	38.0	38.0	DET	5.1	mg/kg	
1992	25FEB92	D-05	S	31.0	31.0	DET	5.6	mg/kg	
1992	25FEB92	D-06	S	82.0	82.0	DET	4.5	mg/kg	

N = 10

---------- Site=Pond D MEDIA=Soils Analyte=Chromium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	12FEB92	BH-02	S	4.6	4.600	DET	3.9	mg/kg	@
1992	25FEB92	D-01	S	.	3.375	ND	4.8	mg/kg	
1992	25FEB92	D-01	S	11.7	11.700	DET	4.3	mg/kg	@
1992	25FEB92	D-02	S	.	3.375	ND	4.5	mg/kg	
1992	25FEB92	D-03	S	.	3.075	ND	4.1	mg/kg	
1992	25FEB92	D-03	S	7.9	7.900	DET	3.8	mg/kg	@
1992	25FEB92	D-04	S	3.6	3.600	DET	3.5	mg/kg	@
1992	25FEB92	D-05	S	.	3.825	ND	5.1	mg/kg	
1992	25FEB92	D-05	S	.	4.200	ND	5.6	mg/kg	
1992	25FEB92	D-06	S	.	3.375	ND	4.5	mg/kg	

N = 10

---------- Site=Pond D MEDIA=Soils Analyte=Cobalt Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	.	3.37500	ND	4.8	mg/kg	
1992	25FEB92	D-01	S	.	3.58333	ND	4.3	mg/kg	
1992	25FEB92	D-02	S	.	3.37500	ND	4.5	mg/kg	
1992	25FEB92	D-03	S	.	3.07500	ND	4.1	mg/kg	
1992	25FEB92	D-03	S	.	2.85000	ND	3.8	mg/kg	
1992	25FEB92	D-04	S	.	2.62500	ND	3.5	mg/kg	
1992	25FEB92	D-05	S	.	3.82500	ND	5.1	mg/kg	
1992	25FEB92	D-05	S	.	4.20000	ND	5.6	mg/kg	
1992	25FEB92	D-06	S	.	3.37500	ND	4.5	mg/kg	

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=Cyanide Method=SW9012 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	2.780	2.780	DET	0.28	mg/kg	
1992	25FEB92	D-01	S	0.275	0.275	DET	0.29	mg/kg	
1992	25FEB92	D-02	S	0.350	0.350	DET	0.35	mg/kg	
1992	25FEB92	D-03	S	0.270	0.270	DET	0.27	mg/kg	
1992	25FEB92	D-03	S	0.290	0.290	DET	0.29	mg/kg	
1992	25FEB92	D-04	S	0.310	0.310	DET	0.31	mg/kg	
1992	25FEB92	D-05	S	0.340	0.340	DET	0.34	mg/kg	
1992	25FEB92	D-05	S	0.330	0.330	DET	0.33	mg/kg	
1992	25FEB92	D-06	S	0.300	0.300	DET	0.30	mg/kg	

N = 9

------ Site=Pond D MEDIA=Soils Analyte=Endosulfan sulfate Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	12FEB92	BH-02	S	0.004900	0.004900	DET	0.0069	mg/kg	JC
1992	25FEB92	D-01	S	0.003815	0.003815	DET	0.0074	mg/kg	JX
1992	25FEB92	D-01	S	0.006600	0.006600	DET	0.0068	mg/kg	
1992	25FEB92	D-02	S	0.002400	0.002400	DET	0.0070	mg/kg	JC
1992	25FEB92	D-03	S	0.000530	0.000530	DET	0.0066	mg/kg	JX
1992	25FEB92	D-03	S	0.006700	0.006700	DET	0.0067	mg/kg	
1992	25FEB92	D-04	S	0.064000	0.064000	DET	0.0640	mg/kg	
1992	25FEB92	D-05	S	0.006800	0.006800	DET	0.0068	mg/kg	
1992	25FEB92	D-05	S	0.006900	0.006900	DET	0.0069	mg/kg	
1992	25FEB92	D-06	S	0.006700	0.006700	DET	0.0067	mg/kg	

N = 10

---------- Site=Pond D MEDIA=Soils Analyte=Heptachlor Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	25FEB92	D-01	S	0.0018	0.0018	DET	0.0014	mg/kg	X@
1992	25FEB92	D-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	25FEB92	D-03	S	0.0013	0.0013	DET	0.0013	mg/kg	
1992	25FEB92	D-03	S	0.0018	0.0018	DET	0.0013	mg/kg	X@
1992	25FEB92	D-04	S	0.0130	0.0130	DET	0.0130	mg/kg	
1992	25FEB92	D-05	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	25FEB92	D-05	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	25FEB92	D-06	S	0.0013	0.0013	DET	0.0013	mg/kg	

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	1.35	1.35	DET	0.38	mg/kg	@
1992	25FEB92	D-01	S	5.00	5.00	DET	0.35	mg/kg	
1992	25FEB92	D-02	S	0.89	0.89	DET	0.35	mg/kg	@
1992	25FEB92	D-03	S	1.10	1.10	DET	0.31	mg/kg	@
1992	25FEB92	D-03	S	2.90	2.90	DET	0.32	mg/kg	
1992	25FEB92	D-04	S	2.20	2.20	DET	0.32	mg/kg	
1992	25FEB92	D-05	S	1.70	1.70	DET	0.28	mg/kg	
1992	25FEB92	D-05	S	1.80	1.80	DET	0.36	mg/kg	
1992	25FEB92	D-06	S	1.50	1.50	DET	0.33	mg/kg	@

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=Nickel Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	.	6.675	ND	9.5	mg/kg	
1992	25FEB92	D-01	S	12.5	12.500	DET	8.7	mg/kg	@
1992	25FEB92	D-02	S	.	6.750	ND	9.0	mg/kg	
1992	25FEB92	D-03	S	.	6.150	ND	8.2	mg/kg	
1992	25FEB92	D-03	S	.	5.625	ND	7.5	mg/kg	
1992	25FEB92	D-04	S	.	5.250	ND	7.0	mg/kg	
1992	25FEB92	D-05	S	.	7.500	ND	10.0	mg/kg	
1992	25FEB92	D-05	S	.	8.250	ND	11.0	mg/kg	
1992	25FEB92	D-06	S	.	6.750	ND	9.0	mg/kg	

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=Selenium Method=SW7740 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	.	0.43500	ND	0.64	mg/kg	
1992	25FEB92	D-01	S	.	0.41625	ND	0.58	mg/kg	
1992	25FEB92	D-02	S	.	0.44250	ND	0.59	mg/kg	
1992	25FEB92	D-03	S	.	0.39000	ND	0.52	mg/kg	
1992	25FEB92	D-03	S	.	0.39750	ND	0.53	mg/kg	
1992	25FEB92	D-04	S	.	0.39750	ND	0.53	mg/kg	
1992	25FEB92	D-05	S	0.59	0.59000	DET	0.47	mg/kg	@
1992	25FEB92	D-05	S	.	0.45000	ND	0.60	mg/kg	
1992	25FEB92	D-06	S	.	0.41250	ND	0.55	mg/kg	

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=Sulfide Method=SW9030 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	35.5	35.5	DET	37	mg/kg	
1992	25FEB92	D-01	S	32.5	32.5	DET	34	mg/kg	
1992	25FEB92	D-02	S	31.0	31.0	DET	31	mg/kg	
1992	25FEB92	D-03	S	33.0	33.0	DET	33	mg/kg	
1992	25FEB92	D-03	S	30.0	30.0	DET	30	mg/kg	
1992	25FEB92	D-04	S	82.0	82.0	DET	32	mg/kg	@
1992	25FEB92	D-05	S	34.0	34.0	DET	34	mg/kg	
1992	25FEB92	D-05	S	34.0	34.0	DET	34	mg/kg	
1992	25FEB92	D-06	S	32.0	32.0	DET	32	mg/kg	

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=Vanadium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	12FEB92	BH-02	S	8.4	8.400	DET	7.8	mg/kg	@
1992	25FEB92	D-01	S	.	6.675	ND	9.5	mg/kg	
1992	25FEB92	D-01	S	24.0	24.000	DET	8.7	mg/kg	@
1992	25FEB92	D-02	S	.	6.750	ND	9.0	mg/kg	
1992	25FEB92	D-03	S	.	6.150	ND	8.2	mg/kg	
1992	25FEB92	D-03	S	15.0	15.000	DET	7.5	mg/kg	@
1992	25FEB92	D-04	S	9.4	9.400	DET	7.0	mg/kg	@
1992	25FEB92	D-05	S	.	7.500	ND	10.0	mg/kg	
1992	25FEB92	D-05	S	.	8.250	ND	11.0	mg/kg	
1992	25FEB92	D-06	S	11.0	11.000	DET	9.0	mg/kg	@

N = 10

---------- Site=Pond D MEDIA=Soils Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	12FEB92	BH-02	S	8.90	8.90	DET	7.8	mg/kg	@
1992	25FEB92	D-01	S	8.15	8.15	DET	9.5	mg/kg	@
1992	25FEB92	D-01	S	27.00	27.00	DET	8.7	mg/kg	@
1992	25FEB92	D-02	S	.	6.75	ND	9.0	mg/kg	
1992	25FEB92	D-03	S	.	6.15	ND	8.2	mg/kg	
1992	25FEB92	D-03	S	18.00	18.00	DET	7.5	mg/kg	@
1992	25FEB92	D-04	S	10.00	10.00	DET	7.0	mg/kg	@
1992	25FEB92	D-05	S	.	7.50	ND	10.0	mg/kg	
1992	25FEB92	D-05	S	.	8.25	ND	11.0	mg/kg	
1992	25FEB92	D-06	S	11.00	11.00	DET	9.0	mg/kg	@

N = 10

-------- Site=Pond D MEDIA=Soils Analyte=alpha-Chlordane Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	0.00150	0.00150	DET	0.0015	mg/kg	
1992	25FEB92	D-01	S	0.00135	0.00135	DET	0.0014	mg/kg	
1992	25FEB92	D-02	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	25FEB92	D-03	S	0.00130	0.00130	DET	0.0013	mg/kg	
1992	25FEB92	D-03	S	0.00150	0.00150	DET	0.0013	mg/kg	X@
1992	25FEB92	D-04	S	0.01300	0.01300	DET	0.0130	mg/kg	
1992	25FEB92	D-05	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	25FEB92	D-05	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	25FEB92	D-06	S	0.00130	0.00130	DET	0.0013	mg/kg	

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=beta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	0.00150	0.00150	DET	0.0015	mg/kg	
1992	25FEB92	D-01	S	0.00135	0.00135	DET	0.0014	mg/kg	
1992	25FEB92	D-02	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	25FEB92	D-03	S	0.00130	0.00130	DET	0.0013	mg/kg	
1992	25FEB92	D-03	S	0.02600	0.02600	DET	0.0013	mg/kg	X
1992	25FEB92	D-04	S	0.01300	0.01300	DET	0.0130	mg/kg	
1992	25FEB92	D-05	S	0.00810	0.00810	DET	0.0014	mg/kg	C
1992	25FEB92	D-05	S	0.00330	0.00330	DET	0.0014	mg/kg	X@
1992	25FEB92	D-06	S	0.00130	0.00130	DET	0.0013	mg/kg	

N = 9

-- Site=Pond D MEDIA=Soils Analyte=bis(2-Ethylhexyl)phthalate Method=SW8270 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	.	0.78667	ND	1.5	mg/kg	
1992	25FEB92	D-01	S	.	1.13333	ND	1.4	mg/kg	
1992	25FEB92	D-02	S	.	1.05000	ND	1.4	mg/kg	
1992	25FEB92	D-03	S	0.64	0.64000	DET	1.3	mg/kg	J
1992	25FEB92	D-03	S	.	0.97500	ND	1.3	mg/kg	
1992	25FEB92	D-04	S	1.10	1.10000	DET	1.3	mg/kg	J
1992	25FEB92	D-05	S	.	1.05000	ND	1.4	mg/kg	
1992	25FEB92	D-05	S	.	1.05000	ND	1.4	mg/kg	
1992	25FEB92	D-06	S	0.82	0.82000	DET	1.3	mg/kg	JB

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=delta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	0.00150	0.00150	DET	0.0015	mg/kg	
1992	25FEB92	D-01	S	0.00135	0.00135	DET	0.0014	mg/kg	
1992	25FEB92	D-02	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	25FEB92	D-03	S	0.00130	0.00130	DET	0.0013	mg/kg	
1992	25FEB92	D-03	S	0.01700	0.01700	DET	0.0013	mg/kg	X
1992	25FEB92	D-04	S	0.01300	0.01300	DET	0.0130	mg/kg	
1992	25FEB92	D-05	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	25FEB92	D-05	S	0.00140	0.00140	DET	0.0014	mg/kg	
1992	25FEB92	D-06	S	0.00130	0.00130	DET	0.0013	mg/kg	

N = 9

---------- Site=Pond D MEDIA=Soils Analyte=gamma-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	25FEB92	D-01	S	0.0015	0.0015	DET	0.0015	mg/kg	
1992	25FEB92	D-01	S	0.0112	0.0112	DET	0.0014	mg/kg	
1992	25FEB92	D-02	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	25FEB92	D-03	S	0.0013	0.0013	DET	0.0013	mg/kg	
1992	25FEB92	D-03	S	0.0013	0.0013	DET	0.0013	mg/kg	
1992	25FEB92	D-04	S	0.0130	0.0130	DET	0.0130	mg/kg	
1992	25FEB92	D-05	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	25FEB92	D-05	S	0.0014	0.0014	DET	0.0014	mg/kg	
1992	25FEB92	D-06	S	0.0013	0.0013	DET	0.0013	mg/kg	

N = 9

------- Site=Pond D MEDIA=Surface Water Analyte=4,4'-DDD Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	06MAR93	D-01	L	.00003	.00003	DET	.0000095	mg/L	X@

N = 1

-------- Site=Pond D MEDIA=Surface Water Analyte=Arsenic Method=SW7060 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	D-1	L	.0039	.0039	DET	.	mg/L	@
1990	10OCT90	D-2	L	.0056	.0056	DET	.	mg/L	@
1990	10OCT90	D-3	L	.0062	.0062	DET	.	mg/L	@
1990	10OCT90	D-4	L	.	.0030	ND	.006	mg/L	
1990	10OCT90	D-5	L	.	.0030	ND	.006	mg/L	
1990	10OCT90	D-6	L	.	.0030	ND	.006	mg/L	

N = 6

-------- Site=Pond D MEDIA=Surface Water Analyte=Barium Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	D-1	L	0.038	0.038	DET	.	mg/L	@
1990	10OCT90	D-2	L	0.038	0.038	DET	.	mg/L	@
1990	10OCT90	D-3	L	0.039	0.039	DET	.	mg/L	@
1990	10OCT90	D-4	L	0.036	0.036	DET	.	mg/L	@
1990	10OCT90	D-5	L	0.035	0.035	DET	.	mg/L	@

-------- Site=Pond D MEDIA=Surface Water Analyte=Barium Method=SW6010 ---------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	D-6	L	0.035	0.035	DET	.	mg/L	@

N = 6

----- Site=Pond D MEDIA=Surface Water Analyte=Benzoic acid Method=SW8270 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	D-2	L	.	0.025	ND	0.05	mg/L	
1990	08OCT90	D-3	L	.	0.025	ND	0.05	mg/L	
1990	08OCT90	D-4	L	0.028	0.028	DET	.	mg/L	J
1990	08OCT90	D-5	L	.	0.025	ND	0.05	mg/L	
1990	08OCT90	D-6	L	.	0.025	ND	0.05	mg/L	

N = 5

--------- Site=Pond D MEDIA=Surface Water Analyte=Boron Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	D-1	L	0.28	0.28	DET	.	mg/L	@
1990	10OCT90	D-2	L	0.25	0.25	DET	.	mg/L	@
1990	10OCT90	D-3	L	0.25	0.25	DET	.	mg/L	@
1990	10OCT90	D-4	L	0.30	0.30	DET	.	mg/L	@
1990	10OCT90	D-5	L	0.30	0.30	DET	.	mg/L	@
1990	10OCT90	D-6	L	0.30	0.30	DET	.	mg/L	@

N = 6

- Site=Pond D MEDIA=Surface Water Analyte=Butylbenzylphthalate Method=SW8270 --

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	D-4	L	.004	.004	DET	.	mg/L	J

N = 1

--- Site=Pond D MEDIA=Surface Water Analyte=Dibutylphthalate Method=SW8270 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	D-4	L	.004	.004	DET	.	mg/L	J

N = 1

------- Site=Pond D MEDIA=Surface Water Analyte=Dieldrin Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	06MAR93	D-01	L	.000015	.000015	DET	.0000095	mg/L	X@

N = 1

--- Site=Pond D MEDIA=Surface Water Analyte=Diethylphthalate Method=SW8270 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	D-4	L	.002	.002	DET	.	mg/L	J

N = 1

-- Site=Pond D MEDIA=Surface Water Analyte=Endosulfan sulfate Method=SW8080 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	06MAR93	D-01	L	.000013	.000013	DET	.000048	mg/L	JB

N = 1

-- Site=Pond D MEDIA=Surface Water Analyte=Heptachlor epoxide Method=SW8080 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	06MAR93	D-01	L	.00001	.00001	DET	.0000095	mg/L	X@

N = 1

--------- Site=Pond D MEDIA=Surface Water Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	D-1	L	.0038	.0038	DET	.	mg/L	@
1990	10OCT90	D-2	L	.0047	.0047	DET	.	mg/L	@
1990	10OCT90	D-3	L	.0041	.0041	DET	.	mg/L	@
1990	10OCT90	D-4	L	.0027	.0027	DET	.	mg/L	@
1990	10OCT90	D-5	L	.0054	.0054	DET	.	mg/L	@
1990	10OCT90	D-6	L	.0044	.0044	DET	.	mg/L	@

N = 6

---- Site=Pond D MEDIA=Surface Water Analyte=Lead (organic) Method=E239.1 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	D-1	L	.	0.05	ND	0.1	mg/L	
1990	08OCT90	D-2	L	.	0.05	ND	0.1	mg/L	
1990	08OCT90	D-3	L	.	0.05	ND	0.1	mg/L	
1990	08OCT90	D-4	L	0.11	0.11	DET	.	mg/L	@
1990	08OCT90	D-5	L	0.12	0.12	DET	.	mg/L	@
1990	08OCT90	D-6	L	.	0.05	ND	0.1	mg/L	

N = 6

------- Site=Pond D MEDIA=Surface Water Analyte=Manganese Method=SW6010 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	D-1	L	0.074	0.074	DET	.	mg/L	
1990	10OCT90	D-2	L	0.072	0.072	DET	.	mg/L	
1990	10OCT90	D-3	L	0.074	0.074	DET	.	mg/L	
1990	10OCT90	D-4	L	0.040	0.040	DET	.	mg/L	
1990	10OCT90	D-5	L	0.039	0.039	DET	.	mg/L	@
1990	10OCT90	D-6	L	0.040	0.040	DET	.	mg/L	

N = 6

-------- Site=Pond D MEDIA=Surface Water Analyte=Mercury Method=SW7470 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	D-1	L	.	.0001	ND	.0002	mg/L	
1990	10OCT90	D-2	L	.	.0001	ND	.0002	mg/L	
1990	10OCT90	D-3	L	.	.0001	ND	.0002	mg/L	

-------- Site=Pond D MEDIA=Surface Water Analyte=Mercury Method=SW7470 --------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	D-4	L	.00051	.00051	DET	.	mg/L	@
1990	10OCT90	D-5	L	.00074	.00074	DET	.	mg/L	@
1990	10OCT90	D-6	L	.00062	.00062	DET	.	mg/L	@

N = 6

----- Site=Pond D MEDIA=Surface Water Analyte=Methoxychlor Method=SW8080 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	D-5	L	.00002	.00002	DET	.	mg/L	J

N = 1

-------- Site=Pond D MEDIA=Surface Water Analyte=Phenol Method=SW8270 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08DCT90	D-2	L	.	.005	ND	0.01	mg/L	
1990	08OCT90	D-3	L	.	.005	ND	0.01	mg/L	
1990	08OCT90	D-4	L	.007	.007	DET	.	mg/L	J
1990	08OCT90	D-5	L	.	.005	ND	0.01	mg/L	
1990	08OCT90	D-6	L	.	.005	ND	0.01	mg/L	

N = 5

------- Site=Pond D MEDIA=Surface Water Analyte=Selenium Method=SW7740 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	D-1	L	.	.0010	ND	.002	mg/L	
1990	10OCT90	D-2	L	.	.0010	ND	.002	mg/L	
1990	10OCT90	D-3	L	.	.0010	ND	.002	mg/L	
1990	10OCT90	D-4	L	.0025	.0025	DET	.	mg/L	@
1990	10OCT90	D-5	L	.0030	.0030	DET	.	mg/L	@
1990	10OCT90	D-6	L	.	.0010	ND	.002	mg/L	

N = 6

-------- Site=Pond D MEDIA=Surface Water Analyte=Silicon Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	D-1	L	17	17	DET	.	mg/L	
1990	10OCT90	D-2	L	17	17	DET	.	mg/L	
1990	10OCT90	D-3	L	16	16	DET	.	mg/L	
1990	10OCT90	D-4	L	14	14	DET	.	mg/L	
1990	10OCT90	D-5	L	14	14	DET	.	mg/L	
1990	10OCT90	D-6	L	14	14	DET	.	mg/L	

N = 6

------- Site=Pond D MEDIA=Surface Water Analyte=Vanadium Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	D-1	L	.0051	.0051	DET	.	mg/L	@
1990	10OCT90	D-2	L	.0060	.0060	DET	.	mg/L	@
1990	10OCT90	D-3	L	.0063	.0063	DET	.	mg/L	@
1990	10OCT90	D-4	L	.	.0025	ND	.005	mg/L	
1990	10OCT90	D-5	L	.	.0025	ND	.005	mg/L	
1990	10OCT90	D-6	L	.	.0025	ND	.005	mg/L	

N = 6

--------- Site=Pond D MEDIA=Surface Water Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	D-1	L	.0038	.0038	DET	.	mg/L	@
1990	10OCT90	D-2	L	.	.0015	ND	.003	mg/L	
1990	10OCT90	D-3	L	.	.0015	ND	.003	mg/L	
1990	10OCT90	D-4	L	.0052	.0052	DET	.	mg/L	@
1990	10OCT90	D-5	L	.0081	.0081	DET	.	mg/L	@
1990	10OCT90	D-6	L	.0076	.0076	DET	.	mg/L	@

N = 6

Site=Pond D MEDIA=Surface Water Analyte=bis(2-Ethylhexyl)phthalate Method=SW827

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	D-1	L	0.004	0.004	DET	.	mg/L	J
1990	08OCT90	D-2	L	.	0.005	ND	0.01	mg/L	
1990	08OCT90	D-3	L	0.013	0.013	DET	.	mg/L	@B

Site=Pond D MEDIA=Surface Water Analyte=bis(2-Ethylhexyl)phthalate Method=SW827
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	08OCT90	D-4	L	0.02	0.02	DET	.	mg/L	@
1990	08OCT90	D-5	L	0.01	0.01	DET	.	mg/L	@B
1990	08OCT90	D-6	L	0.01	0.01	DET	.	mg/L	@B

N = 6

------- Site=Pond D MEDIA=Surface Water Analyte=delta-BHC Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	06MAR93	D-01	L	.000021	.000021	DET	.0000095	mg/L	X@

N = 1

------- Site=Pond D MEDIA=Surface Water Analyte=gamma-BHC Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	06MAR93	D-01	L	.00001	.00001	DET	.0000095	mg/L	@

N = 1

---- Site=Pond D MEDIA=Surface Water Analyte=gamma-Chlordane Method=SW8080 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	06MAR93	D-01	L	.0000058	.0000058	DET	.0000095	mg/L	J

N = 1

---------- Site=Pond E MEDIA=Sludges Analyte=4,4'-DDD Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	0.380	0.380	DET	0.066	mg/kg	C
1992	21FEB92	E-02	S	0.240	0.240	DET	0.050	mg/kg	C@
1992	24FEB92	E-03	S	4.085	4.085	DET	0.051	mg/kg	CD
1992	21FEB92	E-04	S	0.150	0.150	DET	0.054	mg/kg	X@
1992	21FEB92	E-05	S	0.160	0.160	DET	0.059	mg/kg	X@

---------- Site=Pond E MEDIA=Sludges Analyte=4,4'-DDD Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01E	S	0.0045	0.0045	DET	0.0053	mg/kg	J
1994	29OCT94	02E	S	0.0110	0.0110	DET	0.0060	mg/kg	V
1994	29OCT94	03E	S	0.0150	0.0150	DET	0.0160	mg/kg	VJ
1994	30OCT94	04E	S	0.0510	0.0510	DET	0.0150	mg/kg	V
1994	29OCT94	05E	S	0.0520	0.0520	DET	0.0140	mg/kg	
1994	29OCT94	06E	S	0.0920	0.0920	DET	0.0160	mg/kg	V
1994	29OCT94	07E	S	0.0850	0.0850	DET	0.0220	mg/kg	V
1994	29OCT94	08E	S	0.1300	0.1300	DET	0.0280	mg/kg	V
1994	03NOV94	09E	S	0.0093	0.0093	DET	0.0100	mg/kg	J
1994	30OCT94	10E	S	0.0270	0.0270	DET	0.0200	mg/kg	
1994	29OCT94	11E	S	0.0960	0.0960	DET	0.0150	mg/kg	
1994	29OCT94	12E	S	0.1200	0.1200	DET	0.0480	mg/kg	
1994	29OCT94	13E	S	0.0093	0.0093	DET	0.0095	mg/kg	VJ
1994	29OCT94	14E	S	0.0330	0.0330	DET	0.0062	mg/kg	
1994	29OCT94	15E	S	0.0540	0.0540	DET	0.0340	mg/kg	
1994	29OCT94	16E	S	0.0190	0.0190	DET	0.0200	mg/kg	J

N = 21

---------- Site=Pond E MEDIA=Sludges Analyte=4,4'-DDE Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	0.25000	0.25000	DET	0.0660	mg/kg	X@
1992	21FEB92	E-02	S	0.17000	0.17000	DET	0.0500	mg/kg	X@
1992	24FEB92	E-03	S	1.20500	1.20500	DET	0.0510	mg/kg	CD
1992	21FEB92	E-04	S	0.16000	0.16000	DET	0.0540	mg/kg	X@
1992	21FEB92	E-05	S	0.05900	0.05900	DET	0.0590	mg/kg	
1994	30OCT94	01E	S	0.00099	0.00099	DET	0.0053	mg/kg	VJ
1994	29OCT94	02E	S	0.00460	0.00460	DET	0.0060	mg/kg	VJ
1994	29OCT94	03E	S	0.01300	0.01300	DET	0.0160	mg/kg	VJ
1994	30OCT94	04E	S	0.02400	0.02400	DET	0.0150	mg/kg	V
1994	29OCT94	05E	S	0.01500	0.01500	DET	0.0140	mg/kg	V
1994	29OCT94	06E	S	0.01500	0.01500	DET	0.0160	mg/kg	VJ
1994	29OCT94	07E	S	0.03000	0.03000	DET	0.0220	mg/kg	V
1994	29OCT94	08E	S	0.01800	0.01800	DET	0.0280	mg/kg	VJ
1994	03NOV94	09E	S	0.01600	0.01600	DET	0.0100	mg/kg	V
1994	30OCT94	10E	S	0.06300	0.06300	DET	0.0200	mg/kg	V
1994	29OCT94	11E	S	0.02700	0.02700	DET	0.0150	mg/kg	V
1994	29OCT94	12E	S	0.15000	0.15000	DET	0.0480	mg/kg	V
1994	29OCT94	13E	S	0.03000	0.03000	DET	0.0095	mg/kg	V
1994	29OCT94	14E	S	0.01300	0.01300	DET	0.0062	mg/kg	V
1994	29OCT94	15E	S	0.09800	0.09800	DET	0.0340	mg/kg	V
1994	29OCT94	16E	S	0.04600	0.04600	DET	0.0200	mg/kg	V

N = 21

---------- Site=Pond E MEDIA=Sludges Analyte=4,4'-DDT Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	0.1300	0.13000	DET	0.1300	mg/kg	
1992	21FEB92	E-02	S	0.1000	0.10000	DET	0.1000	mg/kg	
1992	24FEB92	E-03	S	0.0630	0.06300	DET	0.0760	mg/kg	
1992	21FEB92	E-04	S	0.0930	0.09300	DET	0.1100	mg/kg	JX
1992	21FEB92	E-05	S	0.1200	0.12000	DET	0.1200	mg/kg	
1994	30OCT94	01E	S	.	0.00006	ND	0.0053	mg/kg	V
1994	29OCT94	02E	S	.	0.00016	ND	0.0060	mg/kg	V
1994	29OCT94	03E	S	0.0047	0.00470	DET	0.0160	mg/kg	J
1994	30OCT94	04E	S	.	0.00032	ND	0.0150	mg/kg	V
1994	29OCT94	05E	S	.	0.00062	ND	0.0140	mg/kg	V
1994	29OCT94	06E	S	.	0.00003	ND	0.0160	mg/kg	V
1994	29OCT94	07E	S	.	0.00062	ND	0.0220	mg/kg	V
1994	29OCT94	08E	S	0.0460	0.04600	DET	0.0280	mg/kg	
1994	03NOV94	09E	S	.	0.00027	ND	0.0100	mg/kg	V
1994	30OCT94	10E	S	0.0049	0.00490	DET	0.0200	mg/kg	J
1994	29OCT94	11E	S	0.0064	0.00640	DET	0.0150	mg/kg	J
1994	29OCT94	12E	S	.	0.00184	ND	0.0480	mg/kg	V
1994	29OCT94	13E	S	0.0026	0.00260	DET	0.0095	mg/kg	J
1994	29OCT94	14E	S	0.0047	0.00470	DET	0.0062	mg/kg	J
1994	29OCT94	15E	S	0.0350	0.03500	DET	0.0340	mg/kg	
1994	29OCT94	16E	S	.	0.00072	ND	0.0200	mg/kg	V

N = 21

---------- Site=Pond E MEDIA=Sludges Analyte=Antimony Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	E-01	S	6.6	6.6	DET	11	mg/kg	@

N = 1

---------- Site=Pond E MEDIA=Sludges Analyte=Arsenic Method=SW7060 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.	1.425	ND	1.90	mg/kg	
1992	21FEB92	E-02	S	.	1.050	ND	1.40	mg/kg	
1992	24FEB92	E-03	S	1.35	1.350	DET	1.40	mg/kg	@
1992	21FEB92	E-04	S	1.90	1.900	DET	1.60	mg/kg	@
1992	21FEB92	E-05	S	2.30	2.300	DET	1.80	mg/kg	@
1993	01APR93	E-01	S	2.70	2.700	DET	1.20	mg/kg	@
1994	30OCT94	01E	S	1.30	1.300	DET	0.81	mg/kg	
1994	29OCT94	02E	S	0.78	0.780	DET	0.91	mg/kg	J

---------- Site=Pond E MEDIA=Sludges Analyte=Arsenic Method=SW7060 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	29OCT94	03E	S	2.90	2.90	DET	2.50	mg/kg	
1994	30OCT94	04E	S	2.90	2.90	DET	4.40	mg/kg	J
1994	29OCT94	05E	S	1.90	1.90	DET	2.00	mg/kg	J
1994	29OCT94	06E	S	6.60	6.60	DET	1.20	mg/kg	
1994	29OCT94	07E	S	2.00	2.00	DET	1.60	mg/kg	
1994	29OCT94	08E	S	1.50	1.50	DET	1.70	mg/kg	J
1994	03NOV94	09E	S	1.20	1.20	DET	1.60	mg/kg	J
1994	30OCT94	10E	S	0.97	0.97	DET	0.74	mg/kg	
1994	29OCT94	11E	S	1.30	1.30	DET	2.30	mg/kg	J
1994	29OCT94	12E	S	0.83	0.83	DET	3.60	mg/kg	J
1994	29OCT94	13E	S	0.66	0.66	DET	2.90	mg/kg	J
1994	29OCT94	14E	S	1.20	1.20	DET	0.94	mg/kg	
1994	29OCT94	15E	S	2.20	2.20	DET	5.10	mg/kg	J
1994	29OCT94	16E	S	1.90	1.90	DET	3.00	mg/kg	J

N = 22

---------- Site=Pond E MEDIA=Sludges Analyte=Barium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	81.0	81.0	DET	4.8	mg/kg	
1992	21FEB92	E-02	S	61.0	61.0	DET	3.8	mg/kg	
1992	24FEB92	E-03	S	66.0	66.0	DET	3.9	mg/kg	
1992	21FEB92	E-04	S	83.0	83.0	DET	4.3	mg/kg	
1992	21FEB92	E-05	S	110.0	110.0	DET	4.5	mg/kg	
1993	01APR93	E-01	S	36.0	36.0	DET	1.1	mg/kg	
1994	30OCT94	01E	S	45.0	45.0	DET	1.6	mg/kg	
1994	29OCT94	02E	S	32.8	32.8	DET	1.8	mg/kg	
1994	29OCT94	03E	S	67.5	67.5	DET	4.9	mg/kg	
1994	30OCT94	04E	S	104.0	104.0	DET	4.4	mg/kg	
1994	29OCT94	05E	S	85.8	85.8	DET	2.0	mg/kg	
1994	29OCT94	06E	S	179.0	179.0	DET	4.9	mg/kg	
1994	29OCT94	07E	S	115.0	115.0	DET	3.3	mg/kg	
1994	29OCT94	08E	S	37.1	37.1	DET	1.7	mg/kg	
1994	03NOV94	09E	S	143.0	143.0	DET	3.1	mg/kg	
1994	30OCT94	10E	S	51.4	51.4	DET	1.5	mg/kg	
1994	29OCT94	11E	S	90.4	90.4	DET	2.3	mg/kg	
1994	29OCT94	12E	S	81.2	81.2	DET	3.6	mg/kg	
1994	29OCT94	13E	S	82.1	82.1	DET	2.9	mg/kg	
1994	29OCT94	14E	S	77.2	77.2	DET	1.9	mg/kg	
1994	29OCT94	15E	S	91.8	91.8	DET	10.3	mg/kg	
1994	29OCT94	16E	S	74.5	74.5	DET	6.1	mg/kg	

N = 22

---------- Site=Pond E MEDIA=Sludges Analyte=Beryllium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01E	S	0.20	0.20000	DET	0.32	mg/kg	J
1994	29OCT94	02E	S	.	0.13667	ND	0.36	mg/kg	
1994	29OCT94	03E	S	.	0.15444	ND	0.98	mg/kg	
1994	30OCT94	04E	S	0.53	0.53000	DET	0.89	mg/kg	J
1994	29OCT94	05E	S	0.38	0.38000	DET	0.41	mg/kg	J
1994	29OCT94	06E	S	.	0.02656	ND	0.97	mg/kg	
1994	29OCT94	07E	S	.	0.00503	ND	0.65	mg/kg	
1994	29OCT94	08E	S	0.27	0.27000	DET	0.34	mg/kg	J
1994	03NOV94	09E	S	0.43	0.43000	DET	0.62	mg/kg	J
1994	30OCT94	10E	S	.	0.07057	ND	0.30	mg/kg	
1994	29OCT94	11E	S	0.52	0.52000	DET	0.46	mg/kg	
1994	29OCT94	12E	S	.	0.12500	ND	0.72	mg/kg	
1994	29OCT94	13E	S	0.36	0.36000	DET	0.58	mg/kg	J
1994	29OCT94	14E	S	.	0.06848	ND	0.37	mg/kg	
1994	29OCT94	15E	S	.	0.09880	ND	2.10	mg/kg	
1994	29OCT94	16E	S	.	0.13932	ND	1.20	mg/kg	

N = 16

---------- Site=Pond E MEDIA=Sludges Analyte=Cadmium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	2.900	2.9000	DET	2.40	mg/kg	@
1992	21FEB92	E-02	S	.	1.4250	ND	1.90	mg/kg	
1992	24FEB92	E-03	S	.	1.3875	ND	2.00	mg/kg	
1992	21FEB92	E-04	S	.	1.6500	ND	2.20	mg/kg	
1992	21FEB92	E-05	S	.	1.7250	ND	2.30	mg/kg	
1993	01APR93	E-01	S	0.082	0.0820	DET	0.56	mg/kg	@

N = 6

---------- Site=Pond E MEDIA=Sludges Analyte=Chromium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	28.0	28.0	DET	4.8	mg/kg	
1992	21FEB92	E-02	S	26.0	26.0	DET	3.8	mg/kg	
1992	24FEB92	E-03	S	16.0	16.0	DET	3.9	mg/kg	@
1992	21FEB92	E-04	S	23.0	23.0	DET	4.3	mg/kg	
1992	21FEB92	E-05	S	21.0	21.0	DET	4.5	mg/kg	@
1993	01APR93	E-01	S	2.9	2.9	DET	1.1	mg/kg	@
1994	30OCT94	01E	S	3.7	3.7	DET	1.6	mg/kg	
1994	29OCT94	02E	S	2.8	2.8	DET	1.8	mg/kg	

---------- Site=Pond E MEDIA=Sludges Analyte=Chromium Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	29OCT94	03E	S	17.6	17.6	DET	4.9	mg/kg	
1994	30OCT94	04E	S	26.4	26.4	DET	4.4	mg/kg	
1994	29OCT94	05E	S	10.6	10.6	DET	2.0	mg/kg	
1994	29OCT94	06E	S	7.1	7.1	DET	4.9	mg/kg	
1994	29OCT94	07E	S	19.9	19.9	DET	3.3	mg/kg	
1994	29OCT94	08E	S	3.5	3.5	DET	1.7	mg/kg	
1994	03NOV94	09E	S	20.8	20.8	DET	3.1	mg/kg	
1994	30OCT94	10E	S	3.6	3.6	DET	1.5	mg/kg	
1994	29OCT94	11E	S	15.4	15.4	DET	2.3	mg/kg	
1994	29DCT94	12E	S	26.5	26.5	DET	3.6	mg/kg	
1994	29OCT94	13E	S	14.4	14.4	DET	2.9	mg/kg	
1994	29OCT94	14E	S	7.8	7.8	DET	1.9	mg/kg	
1994	29OCT94	15E	S	72.4	72.4	DET	10.3	mg/kg	
1994	29OCT94	16E	S	29.9	29.9	DET	6.1	mg/kg	

N = 22

---------- Site=Pond E MEDIA=Sludges Analyte=Cobalt Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01E	S	1.4	1.4	DET	1.6	mg/kg	J
1994	29OCT94	02E	S	0.7	0.7	DET	1.8	mg/kg	J
1994	29OCT94	03E	S	4.1	4.1	DET	4.9	mg/kg	J
1994	30OCT94	04E	S	5.3	5.3	DET	4.4	mg/kg	
1994	29OCT94	05E	S	2.9	2.9	DET	2.0	mg/kg	
1994	29OCT94	06E	S	3.2	3.2	DET	4.9	mg/kg	J
1994	29DCT94	07E	S	4.2	4.2	DET	3.3	mg/kg	
1994	29OCT94	08E	S	1.4	1.4	DET	1.7	mg/kg	J
1994	03NOV94	09E	S	4.6	4.6	DET	3.1	mg/kg	
1994	30OCT94	10E	S	1.0	1.0	DET	1.5	mg/kg	J
1994	29OCT94	11E	S	3.4	3.4	DET	2.3	mg/kg	
1994	29OCT94	12E	S	3.1	3.1	DET	3.6	mg/kg	J
1994	29OCT94	13E	S	2.3	2.3	DET	2.9	mg/kg	J
1994	29OCT94	14E	S	1.9	1.9	DET	1.9	mg/kg	
1994	29OCT94	15E	S	5.9	5.9	DET	10.3	mg/kg	J
1994	29OCT94	16E	S	3.9	3.9	DET	6.1	mg/kg	J

N = 16

---------- Site=Pond E MEDIA=Sludges Analyte=Copper Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	75.0	75.0	DET	9.5	mg/kg	
1992	21FEB92	E-02	S	28.0	28.0	DET	7.7	mg/kg	@
1992	24FEB92	E-03	S	23.0	23.0	DET	7.8	mg/kg	@
1992	21FEB92	E-04	S	48.0	48.0	DET	8.7	mg/kg	
1992	21FEB92	E-05	S	45.0	45.0	DET	9.1	mg/kg	@
1993	01APR93	E-01	S	5.2	5.2	DET	2.2	mg/kg	@
1994	30OCT94	01E	S	5.6	5.6	DET	3.2	mg/kg	
1994	29OCT94	02E	S	5.8	5.8	DET	3.6	mg/kg	
1994	29OCT94	03E	S	34.2	34.2	DET	9.8	mg/kg	
1994	30OCT94	04E	S	35.5	35.5	DET	8.9	mg/kg	
1994	29OCT94	05E	S	19.8	19.8	DET	4.1	mg/kg	
1994	29OCT94	06E	S	7.1	7.1	DET	9.7	mg/kg	J
1994	29OCT94	07E	S	31.3	31.3	DET	6.5	mg/kg	
1994	29OCT94	08E	S	4.1	4.1	DET	3.4	mg/kg	
1994	03NOV94	09E	S	23.1	23.1	DET	6.2	mg/kg	
1994	30OCT94	10E	S	3.5	3.5	DET	3.0	mg/kg	
1994	29OCT94	11E	S	17.6	17.6	DET	4.6	mg/kg	
1994	29OCT94	12E	S	30.4	30.4	DET	7.2	mg/kg	
1994	29OCT94	13E	S	16.9	16.9	DET	5.8	mg/kg	
1994	29OCT94	14E	S	9.7	9.7	DET	3.7	mg/kg	
1994	29OCT94	15E	S	67.1	67.1	DET	20.6	mg/kg	
1994	29OCT94	16E	S	50.1	50.1	DET	12.2	mg/kg	

N = 22

------ Site=Pond E MEDIA=Sludges Analyte=Dibutylphthalate Method=SW8270 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.	4.87500	ND	6.5	mg/kg	
1992	21FEB92	E-02	S	.	3.75000	ND	5.0	mg/kg	
1992	24FEB92	E-03	S	.	1.97667	ND	3.8	mg/kg	
1992	21FEB92	E-04	S	.	4.05000	ND	5.4	mg/kg	
1992	21FEB92	E-05	S	.	4.42500	ND	5.9	mg/kg	

N = 5

---------- Site=Pond E MEDIA=Sludges Analyte=Dieldrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01E	S	.	.00002068	ND	0.0053	mg/kg	
1994	29OCT94	02E	S	.	.00022926	ND	0.0060	mg/kg	
1994	29OCT94	03E	S	.	.00010779	ND	0.0160	mg/kg	

---------- Site=Pond E MEDIA=Sludges Analyte=Dieldrin Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	04E	S	.	.00009776	ND	0.0150	mg/kg	
1994	29OCT94	05E	S	.	.00002040	ND	0.0140	mg/kg	
1994	29OCT94	06E	S	.	.00026574	ND	0.0160	mg/kg	
1994	29OCT94	07E	S	.	.00003564	ND	0.0220	mg/kg	
1994	29OCT94	08E	S	.	.00024281	ND	0.0280	mg/kg	
1994	03NOV94	09E	S	.00031	.00031000	DET	0.0100	mg/kg	J
1994	30OCT94	10E	S	.	.00004337	ND	0.0200	mg/kg	
1994	29OCT94	11E	S	.	.00017249	ND	0.0150	mg/kg	
1994	29OCT94	12E	S	.	.00026621	ND	0.0480	mg/kg	
1994	29OCT94	13E	S	.	.00018530	ND	0.0095	mg/kg	
1994	29OCT94	14E	S	.	.00018337	ND	0.0062	mg/kg	
1994	29OCT94	15E	S	.	.00007617	ND	0.0340	mg/kg	V
1994	29OCT94	16E	S	.	.00006540	ND	0.0200	mg/kg	

N = 16

------ Site=Pond E MEDIA=Sludges Analyte=Diethylphthalate Method=SW8270 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	E-01	S	0.12	0.12	DET	6.7	mg/kg	J

N = 1

--------- Site=Pond E MEDIA=Sludges Analyte=Heptachlor Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	E-01	S	0.59	0.59	DET	0.67	mg/kg	J

N = 1

----- Site=Pond E MEDIA=Sludges Analyte=Heptachlor epoxide Method=SW8080 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	E-01	S	78	78	DET	0.67	mg/kg	X

N = 1

---------- Site=Pond E MEDIA=Sludges Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	13.00	13.0000	DET	1.40	mg/kg	
1992	21FEB92	E-02	S	8.20	8.2000	DET	1.10	mg/kg	
1992	24FEB92	E-03	S	10.20	10.2000	DET	1.00	mg/kg	
1992	21FEB92	E-04	S	10.00	10.0000	DET	1.20	mg/kg	
1992	21FEB92	E-05	S	11.00	11.0000	DET	1.30	mg/kg	
1993	01APR93	E-01	S	21.00	21.0000	DET	0.45	mg/kg	
1994	30OCT94	01E	S	0.58	0.5800	DET	1.60	mg/kg	J
1994	29OCT94	02E	S	0.67	0.6700	DET	1.80	mg/kg	J
1994	29OCT94	03E	S	4.50	4.5000	DET	4.90	mg/kg	J
1994	30OCT94	04E	S	6.20	6.2000	DET	4.40	mg/kg	
1994	29OCT94	05E	S	5.00	5.0000	DET	2.00	mg/kg	
1994	29OCT94	06E	S	.	0.5073	ND	12.20	mg/kg	
1994	29OCT94	07E	S	6.70	6.7000	DET	8.20	mg/kg	J
1994	29OCT94	08E	S	1.30	1.3000	DET	3.40	mg/kg	J
1994	03NOV94	09E	S	4.70	4.7000	DET	1.60	mg/kg	
1994	30OCT94	10E	S	1.20	1.2000	DET	3.00	mg/kg	J
1994	29OCT94	11E	S	9.50	9.5000	DET	11.60	mg/kg	J
1994	29OCT94	12E	S	5.60	5.6000	DET	9.00	mg/kg	J
1994	29OCT94	13E	S	4.90	4.9000	DET	7.20	mg/kg	J
1994	29OCT94	14E	S	3.40	3.4000	DET	9.40	mg/kg	J
1994	29OCT94	15E	S	9.70	9.7000	DET	5.10	mg/kg	
1994	29OCT94	16E	S	8.80	8.8000	DET	3.00	mg/kg	

N = 22

---------- Site=Pond E MEDIA=Sludges Analyte=Mercury Method=SW7471 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	0.310	0.31000	DET	0.30	mg/kg	@
1992	21FEB92	E-02	S	0.290	0.29000	DET	0.22	mg/kg	@
1992	24FEB92	E-03	S	.	0.10875	ND	0.17	mg/kg	
1992	21FEB92	E-04	S	0.440	0.44000	DET	0.25	mg/kg	@
1992	21FEB92	E-05	S	.	0.19500	ND	0.26	mg/kg	
1994	30OCT94	01E	S	.	0.06267	ND	0.16	mg/kg	
1994	29OCT94	02E	S	.	0.04575	ND	0.18	mg/kg	
1994	29OCT94	03E	S	0.360	0.36000	DET	0.49	mg/kg	J
1994	30OCT94	04E	S	0.300	0.30000	DET	0.44	mg/kg	J
1994	29OCT94	05E	S	0.110	0.11000	DET	0.20	mg/kg	J
1994	29DCT94	06E	S	.	0.06520	ND	0.24	mg/kg	
1994	29OCT94	07E	S	.	0.00035	ND	0.33	mg/kg	
1994	29OCT94	08E	S	0.089	0.08900	DET	0.17	mg/kg	J
1994	03NOV94	09E	S	.	0.06965	ND	0.31	mg/kg	
1994	30OCT94	10E	S	0.140	0.14000	DET	0.15	mg/kg	J
1994	29OCT94	11E	S	0.120	0.12000	DET	0.23	mg/kg	J
1994	29OCT94	12E	S	.	0.00711	ND	0.36	mg/kg	

---------- Site=Pond E MEDIA=Sludges Analyte=Mercury Method=SW7471 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	29OCT94	13E	S	.	0.01847	ND	0.29	mg/kg	
1994	29OCT94	14E	S	0.099	0.09900	DET	0.19	mg/kg	J
1994	29OCT94	15E	S	.	0.05825	ND	1.00	mg/kg	
1994	29OCT94	16E	S	0.590	0.59000	DET	0.61	mg/kg	J

N = 21

------ Site=Pond E MEDIA=Sludges Analyte=Molecular sulfur Method=SW8270 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	E-01	S	53	53	DET	.	mg/kg	

N = 1

---------- Site=Pond E MEDIA=Sludges Analyte=Nickel Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	12.0	12.0000	DET	9.5	mg/kg	@
1992	21FEB92	E-02	S	.	5.7750	ND	7.7	mg/kg	
1992	24FEB92	E-03	S	.	7.1667	ND	7.8	mg/kg	
1992	21FEB92	E-04	S	.	6.5250	ND	8.7	mg/kg	
1992	21FEB92	E-05	S	.	6.8250	ND	9.1	mg/kg	
1993	01APR93	E-01	S	3.1	3.1000	DET	2.2	mg/kg	@
1994	30OCT94	01E	S	2.1	2.1000	DET	6.5	mg/kg	J
1994	29OCT94	02E	S	.	0.6217	ND	7.3	mg/kg	
1994	29OCT94	03E	S	3.2	3.2000	DET	19.6	mg/kg	J
1994	30OCT94	04E	S	9.2	9.2000	DET	17.7	mg/kg	J
1994	29OCT94	05E	S	5.2	5.2000	DET	8.2	mg/kg	J
1994	29OCT94	06E	S	5.1	5.1000	DET	19.4	mg/kg	J
1994	29OCT94	07E	S	10.5	10.5000	DET	13.1	mg/kg	J
1994	29OCT94	08E	S	2.7	2.7000	DET	6.7	mg/kg	J
1994	03NOV94	09E	S	11.7	11.7000	DET	12.5	mg/kg	J
1994	30OCT94	10E	S	2.4	2.4000	DET	5.9	mg/kg	J
1994	29OCT94	11E	S	7.0	7.0000	DET	9.3	mg/kg	J
1994	29OCT94	12E	S	7.2	7.2000	DET	14.4	mg/kg	J
1994	29OCT94	13E	S	3.7	3.7000	DET	11.5	mg/kg	J
1994	29OCT94	14E	S	3.4	3.4000	DET	7.5	mg/kg	J
1994	29OCT94	15E	S	9.4	9.4000	DET	41.2	mg/kg	J
1994	29OCT94	16E	S	.	0.5000	ND	24.4	mg/kg	

N = 22

-------- Site=Pond E MEDIA=Sludges Analyte=Phenanthrene Method=SW8270 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	0.81000	0.81000	DET	6.5	mg/kg	J
1992	21FEB92	E-02	S	0.54000	0.54000	DET	5.0	mg/kg	J
1992	24FEB92	E-03	S	1.59333	1.59333	DET	3.8	mg/kg	J
1992	21FEB92	E-04	S	0.34000	0.34000	DET	5.4	mg/kg	J
1992	21FEB92	E-05	S	.	4.42500	ND	5.9	mg/kg	

N = 5

---------- Site=Pond E MEDIA=Sludges Analyte=Selenium Method=SW7740 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	2.70	2.70000	DET	2.40	mg/kg	@
1992	21FEB92	E-02	S	.	1.35000	ND	1.80	mg/kg	
1992	24FEB92	E-03	S	.	1.00875	ND	1.70	mg/kg	
1992	21FEB92	E-04	S	.	1.50000	ND	2.00	mg/kg	
1992	21FEB92	E-05	S	.	1.65000	ND	2.20	mg/kg	
1993	01APR93	E-01	S	0.67	0.67000	DET	0.76	mg/kg	@
1994	30OCT94	01E	S	0.19	0.19000	DET	1.60	mg/kg	J
1994	29OCT94	02E	S	0.24	0.24000	DET	0.91	mg/kg	J
1994	29OCT94	03E	S	1.30	1.30000	DET	2.50	mg/kg	J
1994	30OCT94	04E	S	1.30	1.30000	DET	2.20	mg/kg	J
1994	29OCT94	05E	S	0.72	0.72000	DET	1.00	mg/kg	J
1994	29OCT94	06E	S	.	0.11872	ND	2.40	mg/kg	
1994	29OCT94	07E	S	1.10	1.10000	DET	1.60	mg/kg	J
1994	29OCT94	08E	S	0.20	0.20000	DET	1.70	mg/kg	J
1994	03NOV94	09E	S	0.75	0.75000	DET	3.10	mg/kg	J
1994	30OCT94	10E	S	0.34	0.34000	DET	0.74	mg/kg	J
1994	29OCT94	11E	S	0.63	0.63000	DET	1.20	mg/kg	J
1994	29OCT94	12E	S	0.97	0.97000	DET	1.80	mg/kg	J
1994	29OCT94	13E	S	0.72	0.72000	DET	1.40	mg/kg	J
1994	29OCT94	14E	S	0.36	0.36000	DET	0.94	mg/kg	J
1994	29OCT94	15E	S	3.00	3.00000	DET	5.10	mg/kg	J
1994	29OCT94	16E	S	2.10	2.10000	DET	3.00	mg/kg	J

N = 22

---------- Site=Pond E MEDIA=Sludges Analyte=Silver Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	39.0	39.0	DET	4.8	mg/kg	
1992	21FEB92	E-02	S	27.0	27.0	DET	3.8	mg/kg	
1992	24FEB92	E-03	S	14.5	14.5	DET	3.9	mg/kg	@

---------- Site=Pond E MEDIA=Sludges Analyte=Silver Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	21FEB92	E-04	S	34.00	34.00	DET	4.3	mg/kg	
1992	21FEB92	E-05	S	18.00	18.00	DET	4.5	mg/kg	@
1993	01APR93	E-01	S	0.80	0.80	DET	1.1	mg/kg	@
1994	30OCT94	01E	S	1.20	1.20	DET	1.6	mg/kg	J
1994	29OCT94	02E	S	1.20	1.20	DET	1.8	mg/kg	J
1994	29OCT94	03E	S	21.30	21.30	DET	4.9	mg/kg	
1994	30OCT94	04E	S	29.10	29.10	DET	4.4	mg/kg	
1994	29OCT94	05E	S	8.10	8.10	DET	2.0	mg/kg	
1994	29OCT94	06E	S	2.00	2.00	DET	4.9	mg/kg	J
1994	29OCT94	07E	S	22.40	22.40	DET	3.3	mg/kg	
1994	29OCT94	08E	S	0.93	0.93	DET	1.7	mg/kg	J
1994	03NOV94	09E	S	18.40	18.40	DET	3.1	mg/kg	
1994	30OCT94	10E	S	1.60	1.60	DET	1.5	mg/kg	
1994	29OCT94	11E	S	15.90	15.90	DET	2.3	mg/kg	
1994	29OCT94	12E	S	34.70	34.70	DET	3.6	mg/kg	
1994	29OCT94	13E	S	21.50	21.50	DET	2.9	mg/kg	
1994	29OCT94	14E	S	4.50	4.50	DET	1.9	mg/kg	
1994	29OCT94	15E	S	87.10	87.10	DET	10.3	mg/kg	
1994	29OCT94	16E	S	56.70	56.70	DET	6.1	mg/kg	

N = 22

---------- Site=Pond E MEDIA=Sludges Analyte=Sulfide Method=SW9030 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	160	160	DET	160	mg/kg	
1992	21FEB92	E-02	S	720	720	DET	120	mg/kg	
1992	24FEB92	E-03	S	590	590	DET	94	mg/kg	
1992	21FEB92	E-04	S	130	130	DET	130	mg/kg	
1992	21FEB92	E-05	S	850	850	DET	150	mg/kg	

N = 5

---------- Site=Pond E MEDIA=Sludges Analyte=Thallium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01E	S	.	1.33403	ND	1.6	mg/kg	
1994	29OCT94	02E	S	.	0.39763	ND	1.8	mg/kg	
1994	29OCT94	03E	S	.	0.66213	ND	4.9	mg/kg	
1994	30OCT94	04E	S	.	1.14617	ND	4.4	mg/kg	
1994	29OCT94	05E	S	.	0.97202	ND	2.0	mg/kg	

---------- Site=Pond E MEDIA=Sludges Analyte=Thallium Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	29OCT94	06E	S	.	0.37860	ND	2.4	mg/kg	
1994	29OCT94	07E	S	.	0.74021	ND	3.3	mg/kg	
1994	29OCT94	08E	S	.	0.61846	ND	1.7	mg/kg	
1994	03NOV94	09E	S	.	0.07406	ND	3.1	mg/kg	
1994	30OCT94	10E	S	.	0.40120	ND	1.5	mg/kg	
1994	29OCT94	11E	S	.	1.17098	ND	2.3	mg/kg	
1994	29OCT94	12E	S	.	0.09924	ND	3.6	mg/kg	
1994	29OCT94	13E	S	.	1.72733	ND	2.9	mg/kg	
1994	29OCT94	14E	S	1.8	1.80000	DET	1.9	mg/kg	J
1994	29OCT94	15E	S	.	1.76811	ND	10.3	mg/kg	
1994	29OCT94	16E	S	.	0.39043	ND	6.1	mg/kg	

N = 16

---------- Site=Pond E MEDIA=Sludges Analyte=Tin Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	01APR93	E-01	S	0.27	0.2700	DET	67.0	mg/kg	@
1994	30DCT94	01E	S	.	12.6692	ND	74.5	mg/kg	
1994	29OCT94	02E	S	.	8.5931	ND	67.2	mg/kg	
1994	29OCT94	03E	S	.	38.3427	ND	49.1	mg/kg	
1994	30OCT94	04E	S	.	8.9723	ND	44.3	mg/kg	
1994	29OCT94	05E	S	.	4.0180	ND	20.5	mg/kg	
1994	29OCT94	06E	S	.	19.9414	ND	182.0	mg/kg	
1994	29OCT94	07E	S	.	21.0328	ND	32.7	mg/kg	
1994	29OCT94	08E	S	.	1.2585	ND	92.8	mg/kg	
1994	03NOV94	09E	S	.	20.6147	ND	31.2	mg/kg	
1994	30OCT94	10E	S	.	40.8019	ND	37.1	mg/kg	
1994	29OCT94	11E	S	.	27.5888	ND	23.2	mg/kg	
1994	29OCT94	12E	S	.	25.7068	ND	36.0	mg/kg	
1994	29OCT94	13E	S	.	6.4046	ND	28.8	mg/kg	
1994	29OCT94	14E	S	.	8.5086	ND	31.8	mg/kg	
1994	29OCT94	15E	S	41.70	41.7000	DET	103.0	mg/kg	J
1994	29OCT94	16E	S	.	29.7163	ND	60.9	mg/kg	

N = 17

---------- Site=Pond E MEDIA=Sludges Analyte=Toluene Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	0.66	0.66	DET	0.66	mg/kg	

---------- Site=Pond E MEDIA=Sludges Analyte=Toluene Method=SW8240 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	21FEB92	E-02	S	0.500	0.500	DET	0.50	mg/kg	
1992	24FEB92	E-03	S	0.227	0.227	DET	0.38	mg/kg	
1992	21FEB92	E-04	S	0.540	0.540	DET	0.54	mg/kg	
1992	21FEB92	E-05	S	0.590	0.590	DET	0.59	mg/kg	

N = 5

---------- Site=Pond E MEDIA=Sludges Analyte=Vanadium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	34.0	34.0	DET	9.5	mg/kg	@
1992	21FEB92	E-02	S	24.0	24.0	DET	7.7	mg/kg	@
1992	24FEB92	E-03	S	25.0	25.0	DET	7.8	mg/kg	@
1992	21FEB92	E-04	S	28.0	28.0	DET	8.7	mg/kg	@
1992	21FEB92	E-05	S	33.0	33.0	DET	9.1	mg/kg	@
1993	01APR93	E-01	S	7.1	7.1	DET	2.2	mg/kg	@
1994	30OCT94	01E	S	12.9	12.9	DET	1.6	mg/kg	
1994	29OCT94	02E	S	9.9	9.9	DET	1.8	mg/kg	
1994	29OCT94	03E	S	34.4	34.4	DET	4.9	mg/kg	
1994	30OCT94	04E	S	52.7	52.7	DET	4.4	mg/kg	
1994	29OCT94	05E	S	26.3	26.3	DET	2.0	mg/kg	
1994	29OCT94	06E	S	50.7	50.7	DET	4.9	mg/kg	
1994	29OCT94	07E	S	39.2	39.2	DET	3.3	mg/kg	
1994	29OCT94	08E	S	13.0	13.0	DET	1.7	mg/kg	
1994	03NOV94	09E	S	35.4	35.4	DET	3.1	mg/kg	
1994	30OCT94	10E	S	11.3	11.3	DET	1.5	mg/kg	
1994	29OCT94	11E	S	25.7	25.7	DET	2.3	mg/kg	
1994	29OCT94	12E	S	28.7	28.7	DET	3.6	mg/kg	
1994	29OCT94	13E	S	24.1	24.1	DET	2.9	mg/kg	
1994	29OCT94	14E	S	18.7	18.7	DET	1.9	mg/kg	
1994	29OCT94	15E	S	43.9	43.9	DET	10.3	mg/kg	
1994	29OCT94	16E	S	39.1	39.1	DET	6.1	mg/kg	

N = 22

---------- Site=Pond E MEDIA=Sludges Analyte=Xylenes Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	0.25	0.25	DET	0.66	mg/kg	J
1992	21FEB92	E-02	S	0.50	0.50	DET	0.50	mg/kg	
1992	24FEB92	E-03	S	0.32	0.32	DET	0.38	mg/kg	

---------- Site=Pond E MEDIA=Sludges Analyte=Xylenes Method=SW8240 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	21FEB92	E-04	S	0.54	0.54	DET	0.54	mg/kg	
1992	21FE892	E-05	S	0.59	0.59	DET	0.59	mg/kg	

N = 5

---------- Site=Pond E MEDIA=Sludges Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	86.0	86.0	DET	9.5	mg/kg	
1992	21FEB92	E-02	S	48.0	48.0	DET	7.7	mg/kg	
1992	24FEB92	E-03	S	52.0	52.0	DET	7.8	mg/kg	@
1992	21FEB92	E-04	S	63.0	63.0	DET	8.7	mg/kg	
1992	21FEB92	E-05	S	67.0	67.0	DET	9.1	mg/kg	
1993	01APR93	E-01	S	8.3	8.3	DET	2.2	mg/kg	@
1994	30OCT94	01E	S	12.9	12.9	DET	3.2	mg/kg	
1994	29OCT94	02E	S	10.2	10.2	DET	3.6	mg/kg	
1994	29OCT94	03E	S	59.0	59.0	DET	9.8	mg/kg	
1994	30OCT94	04E	S	64.5	64.5	DET	8.9	mg/kg	
1994	29OCT94	05E	S	33.5	33.5	DET	4.1	mg/kg	
1994	29OCT94	06E	S	23.4	23.4	DET	9.7	mg/kg	
1994	29OCT94	07E	S	45.7	45.7	DET	6.5	mg/kg	
1994	29OCT94	08E	S	16.0	16.0	DET	3.4	mg/kg	
1994	03NOV94	09E	S	47.7	47.7	DET	6.2	mg/kg	
1994	30OCT94	10E	S	10.7	10.7	DET	3.0	mg/kg	
1994	29OCT94	11E	S	38.7	38.7	DET	4.6	mg/kg	
1994	29OCT94	12E	S	55.8	55.8	DET	7.2	mg/kg	
1994	29OCT94	13E	S	31.7	31.7	DET	5.8	mg/kg	
1994	29OCT94	14E	S	19.8	19.8	DET	3.7	mg/kg	
1994	29OCT94	15E	S	118.0	118.0	DET	20.6	mg/kg	
1994	29OCT94	16E	S	80.1	80.1	DET	12.2	mg/kg	

N = 22

---------- Site=Pond E MEDIA=Sludges Analyte=alpha-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01E	S	.	.000043481	ND	.0028	mg/kg	
1994	29OCT94	02E	S	.	.000010407	ND	.0031	mg/kg	
1994	29OCT94	03E	S	.	.000043474	ND	.0083	mg/kg	
1994	30OCT94	04E	S	.	.000046941	ND	.0075	mg/kg	
1994	29OCT94	05E	S	.	.000025302	ND	.0070	mg/kg	

---------- Site=Pond E MEDIA=Sludges Analyte=alpha-BHC Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	29OCT94	06E	S	.	.00002860	ND	0.0083	mg/kg	
1994	29OCT94	07E	S	.	.00001752	ND	0.0110	mg/kg	
1994	29OCT94	08E	S	.	.00002329	ND	0.0140	mg/kg	
1994	03NOV94	09E	S	.000210	.00021000	DET	0.0053	mg/kg	J
1994	30OCT94	10E	S	.000082	.00008200	DET	0.0100	mg/kg	J
1994	29OCT94	11E	S	.000092	.00009200	DET	0.0079	mg/kg	J
1994	29OCT94	12E	S	.	.00004396	ND	0.0240	mg/kg	
1994	29OCT94	13E	S	.000051	.00005100	DET	0.0049	mg/kg	VJ
1994	29OCT94	14E	S	.000420	.00042000	DET	0.0032	mg/kg	J
1994	29OCT94	15E	S	.000550	.00055000	DET	0.0180	mg/kg	J
1994	29OCT94	16E	S	.000150	.00015000	DET	0.0100	mg/kg	J

N = 16

- Site=Pond E MEDIA=Sludges Analyte=bis(2-Ethylhexyl)phthalate Method=SW8270 --

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	9.00	9.00	DET	6.5	mg/kg	@
1992	21FEB92	E-02	S	3.60	3.60	DET	5.0	mg/kg	J
1992	24FEB92	E-03	S	6.25	6.25	DET	3.8	mg/kg	@
1992	21FEB92	E-04	S	6.60	6.60	DET	5.4	mg/kg	@
1992	21FEB92	E-05	S	12.00	12.00	DET	5.9	mg/kg	@
1993	01APR93	E-01	S	0.66	0.66	DET	6.7	mg/kg	J

N = 6

---------- Site=Pond E MEDIA=Sludges Analyte=delta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01E	S	.	.0013354	ND	0.0028	mg/kg	
1994	29OCT94	02E	S	.	.0010758	ND	0.0031	mg/kg	
1994	29OCT94	03E	S	.0025	.0025000	DET	0.0083	mg/kg	J
1994	30OCT94	04E	S	.	.0010252	ND	0.0075	mg/kg	
1994	29OCT94	05E	S	.	.0000861	ND	0.0070	mg/kg	
1994	29OCT94	06E	S	.	.0000153	ND	0.0083	mg/kg	
1994	29OCT94	07E	S	.	.0011841	ND	0.0110	mg/kg	
1994	29OCT94	08E	S	.	.0005447	ND	0.0140	mg/kg	
1994	03NOV94	09E	S	.0019	.0019000	DET	0.0053	mg/kg	J
1994	30OCT94	10E	S	.	.0004144	ND	0.0100	mg/kg	
1994	29OCT94	11E	S	.	.0011188	ND	0.0079	mg/kg	
1994	29OCT94	12E	S	.	.0008200	ND	0.0240	mg/kg	

---------- Site=Pond E MEDIA=Sludges Analyte=delta-BHC Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	29OCT94	13E	S	.	.0015859	ND	0.0049	mg/kg	
1994	29OCT94	14E	S	.	.0001223	ND	0.0032	mg/kg	
1994	29OCT94	15E	S	.	.0005107	ND	0.0180	mg/kg	
1994	29OCT94	16E	S	.	.0006110	ND	0.0100	mg/kg	

N = 16

---------- Site=Pond E MEDIA=Sludges Analyte=gamma-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	30OCT94	01E	S	.	.00001987	ND	0.0028	mg/kg	
1994	29OCT94	02E	S	.	.00005890	ND	0.0031	mg/kg	
1994	29OCT94	03E	S	.	.00042036	ND	0.0083	mg/kg	
1994	30OCT94	04E	S	.	.00053193	ND	0.0075	mg/kg	
1994	29OCT94	05E	S	.	.00003857	ND	0.0070	mg/kg	V
1994	29OCT94	06E	S	.	.00022805	ND	0.0083	mg/kg	
1994	29OCT94	07E	S	.	.00022426	ND	0.0110	mg/kg	
1994	29OCT94	08E	S	.	.00004105	ND	0.0140	mg/kg	
1994	03NOV94	09E	S	.	.00031517	ND	0.0053	mg/kg	
1994	30OCT94	10E	S	.	.00044007	ND	0.0100	mg/kg	
1994	29OCT94	11E	S	.	.00031672	ND	0.0079	mg/kg	
1994	29OCT94	12E	S	.00058	.00058000	DET	0.0240	mg/kg	J
1994	29OCT94	13E	S	.	.00000743	ND	0.0049	mg/kg	
1994	29OCT94	14E	S	.	.00023546	ND	0.0032	mg/kg	
1994	29OCT94	15E	S	.	.00027422	ND	0.0180	mg/kg	V
1994	29OCT94	16E	S	.	.00003377	ND	0.0100	mg/kg	V

N = 16

------- Site=Pond E MEDIA=Sludges Analyte=gamma-Chlordane Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	0.0660	0.0660	DET	0.066	mg/kg	
1992	21FEB92	E-02	S	0.0500	0.0500	DET	0.050	mg/kg	
1992	24FEB92	E-03	S	0.1595	0.1595	DET	0.038	mg/kg	X@
1992	21FEB92	E-04	S	0.0540	0.0540	DET	0.054	mg/kg	
1992	21FEB92	E-05	S	0.0620	0.0620	DET	0.059	mg/kg	X@
1993	01APR93	E-01	S	0.5400	0.5400	DET	0.670	mg/kg	J

N = 6

-- Site=Pond E MEDIA=Soils Analyte=1,1,2-Trichlorotrifluoroet Method=SW8240 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	21FEB92	E-05	S	0.017	0.017	DET	.	mg/kg	

N = 1

---------- Site=Pond E MEDIA=Soils Analyte=4,4'-DDD Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	0.0014	0.0014	DET	.0014	mg/kg	
1992	20FEB92	E-01	S	0.0014	0.0014	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	0.0014	0.0014	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	0.0014	0.0014	DET	.0014	mg/kg	
1992	24FEB92	E-03	S	0.0815	0.0815	DET	.0013	mg/kg	C
1992	24FEB92	E-03	S	0.0216	0.0216	DET	.0014	mg/kg	C
1992	21FEB92	E-04	S	0.0036	0.0036	DET	.0014	mg/kg	X@
1992	21FEB92	E-05	S	0.0013	0.0013	DET	.0013	mg/kg	
1992	21FEB92	E-05	S	0.0013	0.0013	DET	.0013	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=4,4'-DDE Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.00140	.00140	DET	.0014	mg/kg	
1992	20FEB92	E-01	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	.00140	.00140	DET	.0014	mg/kg	
1992	24FEB92	E-03	S	.00705	.00705	DET	.0013	mg/kg	C
1992	24FEB92	E-03	S	.00530	.00530	DET	.0014	mg/kg	C@
1992	21FEB92	E-04	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-05	S	.00130	.00130	DET	.0013	mg/kg	
1992	21FEB92	E-05	S	.00130	.00130	DET	.0013	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=4,4'-DDT Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.0027	.0027	DET	.0027	mg/kg	
1992	20FEB92	E-01	S	.0028	.0028	DET	.0028	mg/kg	

---------- Site=Pond E MEDIA=Soils Analyte=4,4'-DDT Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	21FEB92	E-02	S	.00280	.00280	DET	.0028	mg/kg	
1992	21FEB92	E-02	S	.00400	.00400	DET	.0029	mg/kg	X@
1992	24FEB92	E-03	S	.00275	.00275	DET	.0026	mg/kg	X@
1992	24FEB92	E-03	S	.00330	.00330	DET	.0028	mg/kg	X@
1992	21FEB92	E-04	S	.00270	.00270	DET	.0027	mg/kg	
1992	21FEB92	E-05	S	.00260	.00260	DET	.0026	mg/kg	
1992	21FEB92	E-05	S	.00250	.00250	DET	.0025	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Acetone Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.	0.10500	ND	0.14	mg/kg	
1992	20FEB92	E-01	S	.	0.10500	ND	0.14	mg/kg	
1992	21FEB92	E-02	S	.	0.10500	ND	0.14	mg/kg	
1992	21FEB92	E-02	S	.	0.10500	ND	0.14	mg/kg	
1992	24FEB92	E-03	S	.	0.09375	ND	0.13	mg/kg	
1992	24FEB92	E-03	S	.	0.10500	ND	0.14	mg/kg	
1992	21FEB92	E-04	S	0.062	0.06200	DET	0.14	mg/kg	JB
1992	21FEB92	E-05	S	.	0.09750	ND	0.13	mg/kg	
1992	21FEB92	E-05	S	.	0.09750	ND	0.13	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Aldrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.00140	.00140	DET	.0014	mg/kg	
1992	20FEB92	E-01	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	.00240	.00240	DET	.0014	mg/kg	X@
1992	24FEB92	E-03	S	.00125	.00125	DET	.0013	mg/kg	
1992	24FEB92	E-03	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-04	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-05	S	.00130	.00130	DET	.0013	mg/kg	
1992	21FEB92	E-05	S	.00130	.00130	DET	.0013	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Arsenic Method=SW7060 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	1.10	1.10	DET	0.34	mg/kg	@
1992	20FEB92	E-01	S	1.10	1.10	DET	0.38	mg/kg	@
1992	21FEB92	E-02	S	2.40	2.40	DET	0.41	mg/kg	
1992	21FEB92	E-02	S	2.60	2.60	DET	0.43	mg/kg	
1992	24FEB92	E-03	S	0.71	0.71	DET	0.47	mg/kg	@
1992	24FEB92	E-03	S	2.65	2.65	DET	0.55	mg/kg	
1992	21FEB92	E-04	S	1.00	1.00	DET	0.41	mg/kg	@
1992	21FEB92	E-05	S	1.20	1.20	DET	0.39	mg/kg	@
1992	21FEB92	E-05	S	2.00	2.00	DET	0.35	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Barium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	94.0	94.0	DET	4.3	mg/kg	
1992	20FEB92	E-01	S	74.0	74.0	DET	4.5	mg/kg	
1992	21FEB92	E-02	S	86.0	86.0	DET	3.9	mg/kg	
1992	21FEB92	E-02	S	45.0	45.0	DET	4.3	mg/kg	
1992	24FEB92	E-03	S	30.5	30.5	DET	4.4	mg/kg	
1992	24FEB92	E-03	S	62.5	62.5	DET	5.1	mg/kg	
1992	21FEB92	E-04	S	67.0	67.0	DET	4.2	mg/kg	
1992	21FEB92	E-05	S	47.0	47.0	DET	3.9	mg/kg	
1992	21FEB92	E-05	S	130.0	130.0	DET	4.1	mg/kg	

N = 9

------- Site=Pond E MEDIA=Soils Analyte=Carbon disulfide Method=SW8240 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.	0.005100	ND	.0068	mg/kg	
1992	20FEB92	E-01	S	.	0.005250	ND	.0070	mg/kg	
1992	21FEB92	E-02	S	.	0.005250	ND	.0070	mg/kg	
1992	21FEB92	E-02	S	.	0.005400	ND	.0072	mg/kg	
1992	24FEB92	E-03	S	0.0180	0.018000	DET	.0066	mg/kg	@
1992	24FEB92	E-03	S	0.0120	0.012000	DET	.0070	mg/kg	@
1992	21FEB92	E-04	S	0.0069	0.006900	DET	.0069	mg/kg	@
1992	21FEB92	E-05	S	.	0.004950	ND	.0066	mg/kg	
1992	21FEB92	E-05	S	.	0.004725	ND	.0063	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Chromium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.	3.22500	ND	4.3	mg/kg	
1992	20FEB92	E-01	S	.	3.37500	ND	4.5	mg/kg	
1992	21FEB92	E-02	S	5.00	5.00000	DET	3.9	mg/kg	@
1992	21FEB92	E-02	S	.	3.22500	ND	4.3	mg/kg	
1992	24FEB92	E-03	S	.	3.43333	ND	4.4	mg/kg	
1992	24FEB92	E-03	S	8.45	8.45000	DET	5.1	mg/kg	@
1992	21FEB92	E-04	S	.	3.15000	ND	4.2	mg/kg	
1992	21FEB92	E-05	S	4.20	4.20000	DET	3.9	mg/kg	@
1992	21FEB92	E-05	S	4.20	4.20000	DET	4.1	mg/kg	@

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Cobalt Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.	3.2250	ND	4.3	mg/kg	
1992	20FEB92	E-01	S	.	3.3750	ND	4.5	mg/kg	
1992	21FEB92	E-02	S	7	7.0000	DET	3.9	mg/kg	@
1992	21FEB92	E-02	S	.	3.2250	ND	4.3	mg/kg	
1992	24FEB92	E-03	S	.	2.9625	ND	4.4	mg/kg	
1992	24FEB92	E-03	S	.	3.6750	ND	5.1	mg/kg	
1992	21FEB92	E-04	S	.	3.1500	ND	4.2	mg/kg	
1992	21FEB92	E-05	S	.	2.9250	ND	3.9	mg/kg	
1992	21FEB92	E-05	S	.	3.0750	ND	4.1	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Cyanide Method=SW9012 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	0.330	0.330	DET	0.33	mg/kg	
1992	20FEB92	E-01	S	0.930	0.930	DET	0.35	mg/kg	@
1992	21FEB92	E-02	S	0.690	0.690	DET	0.35	mg/kg	@
1992	21FEB92	E-02	S	0.880	0.880	DET	0.35	mg/kg	@
1992	24FEB92	E-03	S	0.310	0.310	DET	0.32	mg/kg	
1992	24FEB92	E-03	S	0.325	0.325	DET	0.33	mg/kg	
1992	21FEB92	E-04	S	2.900	2.900	DET	0.32	mg/kg	
1992	21FEB92	E-05	S	1.200	1.200	DET	0.30	mg/kg	@
1992	21FEB92	E-05	S	0.720	0.720	DET	0.30	mg/kg	@

N = 9

--------- Site=Pond E MEDIA=Soils Analyte=Endosulfan II Method=SW8080 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.00069	.00069	DET	.0041	mg/kg	JX
1992	20FEB92	E-01	S	.00420	.00420	DET	.0042	mg/kg	
1992	21FEB92	E-02	S	.00420	.00420	DET	.0042	mg/kg	
1992	21FEB92	E-02	S	.00170	.00170	DET	.0043	mg/kg	JX
1992	24FEB92	E-03	S	.00385	.00385	DET	.0040	mg/kg	
1992	24FEB92	E-03	S	.00420	.00420	DET	.0042	mg/kg	
1992	21FEB92	E-04	S	.00410	.00410	DET	.0041	mg/kg	
1992	21FEB92	E-05	S	.00390	.00390	DET	.0039	mg/kg	
1992	21FEB92	E-05	S	.00380	.00380	DET	.0038	mg/kg	

N = 9

------ Site=Pond E MEDIA=Soils Analyte=Endosulfan sulfate Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.00680	.00680	DET	.0068	mg/kg	
1992	20FEB92	E-01	S	.00089	.00089	DET	.0070	mg/kg	JX
1992	21FEB92	E-02	S	.00110	.00110	DET	.0070	mg/kg	JC
1992	21FEB92	E-02	S	.00720	.00720	DET	.0072	mg/kg	
1992	24FEB92	E-03	S	.00335	.00335	DET	.0066	mg/kg	
1992	24FEB92	E-03	S	.00700	.00700	DET	.0070	mg/kg	
1992	21FEB92	E-04	S	.00190	.00190	DET	.0068	mg/kg	JC
1992	21FEB92	E-05	S	.00160	.00160	DET	.0065	mg/kg	JC
1992	21FEB92	E-05	S	.00092	.00092	DET	.0063	mg/kg	JX

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Heptachlor Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.00140	.00140	DET	.0014	mg/kg	
1992	20FEB92	E-01	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	.00210	.00210	DET	.0014	mg/kg	X@
1992	21FEB92	E-02	S	.00086	.00086	DET	.0014	mg/kg	JX
1992	24FEB92	E-03	S	.00125	.00125	DET	.0013	mg/kg	
1992	24FEB92	E-03	S	.00160	.00160	DET	.0014	mg/kg	X@
1992	21FEB92	E-04	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-05	S	.00130	.00130	DET	.0013	mg/kg	
1992	21FEB92	E-05	S	.00130	.00130	DET	.0013	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.	0.1875	ND	0.25	mg/kg	
1992	20FEB92	E-01	S	0.87	0.8700	DET	0.28	mg/kg	@
1992	21FEB92	E-02	S	1.60	1.6000	DET	0.31	mg/kg	
1992	21FEB92	E-02	S	1.30	1.3000	DET	0.32	mg/kg	@
1992	24FEB92	E-03	S	1.60	1.6000	DET	0.36	mg/kg	@
1992	24FEB92	E-03	S	4.20	4.2000	DET	0.41	mg/kg	
1992	21FEB92	E-04	S	0.89	0.8900	DET	0.31	mg/kg	@
1992	21FEB92	E-05	S	2.70	2.7000	DET	0.29	mg/kg	
1992	21FEB92	E-05	S	2.30	2.3000	DET	0.27	mg/kg	

N = 9

------ Site=Pond E MEDIA=Soils Analyte=Methylene chloride Method=SW8240 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.	.005100	ND	.0068	mg/kg	
1992	20FEB92	E-01	S	.	.005250	ND	.0070	mg/kg	
1992	21FEB92	E-02	S	.	.005250	ND	.0070	mg/kg	
1992	21FEB92	E-02	S	.	.005400	ND	.0072	mg/kg	
1992	24FEB92	E-03	S	.	.004800	ND	.0066	mg/kg	
1992	24FEB92	E-03	S	.	.005250	ND	.0070	mg/kg	
1992	21FEB92	E-04	S	.0024	.002400	DET	.0069	mg/kg	J
1992	21FEB92	E-05	S	.	.004950	ND	.0066	mg/kg	
1992	21FEB92	E-05	S	.	.004725	ND	.0063	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Selenium Method=SW7740 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.	0.63750	ND	0.85	mg/kg	
1992	20FEB92	E-01	S	1	1.00000	DET	0.95	mg/kg	@
1992	21FEB92	E-02	S	.	0.38250	ND	0.51	mg/kg	
1992	21FEB92	E-02	S	.	0.40500	ND	0.54	mg/kg	
1992	24FEB92	E-03	S	.	0.40500	ND	0.59	mg/kg	
1992	24FEB92	E-03	S	.	0.46875	ND	0.68	mg/kg	
1992	21FEB92	E-04	S	.	0.38250	ND	0.51	mg/kg	
1992	21FEB92	E-05	S	.	0.36750	ND	0.49	mg/kg	
1992	21FEB92	E-05	S	.	0.33000	ND	0.44	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Sulfide Method=SW9030 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	59.0	59.0	DET	31	mg/kg	@
1992	20FEB92	E-01	S	33.0	33.0	DET	33	mg/kg	
1992	21FEB92	E-02	S	90.0	90.0	DET	33	mg/kg	@
1992	21FEB92	E-02	S	34.0	34.0	DET	34	mg/kg	
1992	24FEB92	E-03	S	56.5	56.5	DET	31	mg/kg	@
1992	24FEB92	E-03	S	82.0	82.0	DET	34	mg/kg	@
1992	21FEB92	E-04	S	34.0	34.0	DET	34	mg/kg	
1992	21FEB92	E-05	S	33.0	33.0	DET	33	mg/kg	
1992	21FEB92	E-05	S	31.0	31.0	DET	31	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Toluene Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.006800	.006800	DET	.0068	mg/kg	
1992	20FEB92	E-01	S	.007000	.007000	DET	.0070	mg/kg	
1992	21FEB92	E-02	S	.000120	.000120	DET	.0070	mg/kg	J
1992	21FEB92	E-02	S	.007200	.007200	DET	.0072	mg/kg	
1992	24FEB92	E-03	S	.003395	.003395	DET	.0066	mg/kg	
1992	24FEB92	E-03	S	.007000	.007000	DET	.0070	mg/kg	
1992	21FEB92	E-04	S	.001800	.001800	DET	.0069	mg/kg	J
1992	21FEB92	E-05	S	.000270	.000270	DET	.0066	mg/kg	J
1992	21FEB92	E-05	S	.006300	.006300	DET	.0063	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Vanadium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	9.9	9.900	DET	8.6	mg/kg	@
1992	20FEB92	E-01	S	.	6.750	ND	9.0	mg/kg	
1992	21FEB92	E-02	S	13.0	13.000	DET	7.8	mg/kg	@
1992	21FEB92	E-02	S	.	6.375	ND	8.5	mg/kg	
1992	24FEB92	E-03	S	.	7.150	ND	8.9	mg/kg	
1992	24FEB92	E-03	S	19.0	19.000	DET	10.0	mg/kg	@
1992	21FEB92	E-04	S	9.5	9.500	DET	8.4	mg/kg	@
1992	21FEB92	E-05	S	11.0	11.000	DET	7.8	mg/kg	@
1992	21FEB92	E-05	S	13.0	13.000	DET	8.2	mg/kg	@

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	12.0	12.0	DET	8.6	mg/kg	@
1992	20FEB92	E-01	S	14.0	14.0	DET	9.0	mg/kg	@
1992	21FEB92	E-02	S	14.0	14.0	DET	7.8	mg/kg	@
1992	21FEB92	E-02	S	12.0	12.0	DET	8.5	mg/kg	@
1992	24FEB92	E-03	S	8.8	8.8	DET	8.9	mg/kg	@
1992	24FEB92	E-03	S	22.0	22.0	DET	10.0	mg/kg	@
1992	21FEB92	E-04	S	15.0	15.0	DET	8.4	mg/kg	@
1992	21FEB92	E-05	S	11.0	11.0	DET	7.8	mg/kg	@
1992	21FEB92	E-05	S	11.0	11.0	DET	8.2	mg/kg	@

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=alpha-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.00140	.00140	DET	.0014	mg/kg	
1992	20FEB92	E-01	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	.00140	.00140	DET	.0014	mg/kg	
1992	24FEB92	E-03	S	.00175	.00175	DET	.0013	mg/kg	C@
1992	24FEB92	E-03	S	.00190	.00190	DET	.0014	mg/kg	C@
1992	21FEB92	E-04	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-05	S	.00130	.00130	DET	.0013	mg/kg	
1992	21FEB92	E-05	S	.00130	.00130	DET	.0013	mg/kg	

N = 9

-------- Site=Pond E MEDIA=Soils Analyte=alpha-Chlordane Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.00140	.00140	DET	.0014	mg/kg	
1992	20FEB92	E-01	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	.00140	.00140	DET	.0014	mg/kg	
1992	24FEB92	E-03	S	.00125	.00125	DET	.0013	mg/kg	X@
1992	24FEB92	E-03	S	.00130	.00130	DET	.0014	mg/kg	JX
1992	21FEB92	E-04	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-05	S	.00130	.00130	DET	.0013	mg/kg	
1992	21FEB92	E-05	S	.00052	.00052	DET	.0013	mg/kg	JX

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=beta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	0.0041	0.0041	DET	.0014	mg/kg	X@
1992	20FEB92	E-01	S	0.0013	0.0013	DET	.0014	mg/kg	JX
1992	21FEB92	E-02	S	0.0044	0.0044	DET	.0014	mg/kg	C@
1992	21FEB92	E-02	S	0.0096	0.0096	DET	.0014	mg/kg	C
1992	24FEB92	E-03	S	0.0013	0.0013	DET	.0013	mg/kg	X@
1992	24FEB92	E-03	S	0.0194	0.0194	DET	.0014	mg/kg	X@
1992	21FEB92	E-04	S	0.0014	0.0014	DET	.0014	mg/kg	
1992	21FEB92	E-05	S	0.0013	0.0013	DET	.0013	mg/kg	
1992	21FEB92	E-05	S	0.0027	0.0027	DET	.0013	mg/kg	X@

N = 9

-- Site=Pond E MEDIA=Soils Analyte=bis(2-Ethylhexyl)phthalate Method=SW8270 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.	0.975	ND	1.3	mg/kg	
1992	20FEB92	E-01	S	.	1.050	ND	1.4	mg/kg	
1992	21FEB92	E-02	S	.	1.050	ND	1.4	mg/kg	
1992	21FEB92	E-02	S	5.400	5.400	DET	1.4	mg/kg	@
1992	24FEB92	E-03	S	2.005	2.005	DET	1.3	mg/kg	J
1992	24FEB92	E-03	S	.	0.780	ND	1.4	mg/kg	
1992	21FEB92	E-04	S	.	1.050	ND	1.4	mg/kg	
1992	21FEB92	E-05	S	.	0.975	ND	1.3	mg/kg	
1992	21FEB92	E-05	S	.	0.975	ND	1.3	mg/kg	

N = 9

---------- Site=Pond E MEDIA=Soils Analyte=delta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	0.00140	0.00140	DET	.0014	mg/kg	
1992	20FEB92	E-01	S	0.00140	0.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	0.00140	0.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	0.01100	0.01100	DET	.0014	mg/kg	X
1992	24FEB92	E-03	S	0.00125	0.00125	DET	.0013	mg/kg	
1992	24FEB92	E-03	S	0.00540	0.00540	DET	.0014	mg/kg	X
1992	21FEB92	E-04	S	0.00140	0.00140	DET	.0014	mg/kg	
1992	21FEB92	E-05	S	0.00130	0.00130	DET	.0013	mg/kg	
1992	21FEB92	E-05	S	0.00130	0.00130	DET	.0013	mg/kg	

N = 9

-------- Site=Pond E MEDIA=Soils Analyte=gamma-Chlordane Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	20FEB92	E-01	S	.00140	.00140	DET	.0014	mg/kg	
1992	20FEB92	E-01	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-02	S	.00140	.00140	DET	.0014	mg/kg	
1992	24FEB92	E-03	S	.00565	.00565	DET	.0013	mg/kg	X@
1992	24FEB92	E-03	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-04	S	.00140	.00140	DET	.0014	mg/kg	
1992	21FEB92	E-05	S	.00130	.00130	DET	.0013	mg/kg	
1992	21FEB92	E-05	S	.00130	.00130	DET	.0013	mg/kg	

N = 9

------- Site=Pond E MEDIA=Surface Water Analyte=4,4'-DDD Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	07MAR93	E-01	L	.000026	.000026	DET	.0000095	mg/L	X@

N = 1

------- Site=Pond E MEDIA=Surface Water Analyte=4,4'-DDE Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-1	L	.0004	.00040000	DET	.	mg/L	J
1990	10OCT90	E-4	L	.	.00030000	ND	.0006000	mg/L	
1990	10OCT90	E-5	L	.	.00030000	ND	.0006000	mg/L	
1993	07MAR93	E-01	L	.	.00000477	ND	.0000096	mg/L	

N = 4

-------- Site=Pond E MEDIA=Surface Water Analyte=Barium Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-1	L	0.037	0.037	DET	.	mg/L	@
1990	10OCT90	E-2	L	0.027	0.027	DET	.	mg/L	@
1990	10OCT90	E-3	L	0.034	0.034	DET	.	mg/L	@
1990	10OCT90	E-4	L	0.036	0.036	DET	.	mg/L	@
1990	10OCT90	E-5	L	0.035	0.035	DET	.	mg/L	@
1990	10OCT90	E-6	L	0.037	0.037	DET	.	mg/L	@

N = 6

----- Site=Pond E MEDIA=Surface Water Analyte=Benzoic acid Method=SW8270 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-1	L	0.01	0.01	DET	.	mg/L	J

N = 1

--------- Site=Pond E MEDIA=Surface Water Analyte=Boron Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-1	L	0.33	0.33	DET	.	mg/L	@
1990	10OCT90	E-2	L	0.24	0.24	DET	.	mg/L	@
1990	10OCT90	E-3	L	0.29	0.29	DET	.	mg/L	@
1990	10OCT90	E-4	L	0.32	0.32	DET	.	mg/L	@
1990	10OCT90	E-5	L	0.28	0.28	DET	.	mg/L	@
1990	10OCT90	E-6	L	0.30	0.30	DET	.	mg/L	@

N = 6

------- Site=Pond E MEDIA=Surface Water Analyte=Dieldrin Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	07MAR93	E-01	L	.0000145	.0000145	DET	.0000095	mg/L	X@

N = 1

-- Site=Pond E MEDIA=Surface Water Analyte=Heptachlor epoxide Method=SW8080 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	07MAR93	E-01	L	.00001	.00001	DET	.0000095	mg/L	@

N = 1

--------- Site=Pond E MEDIA=Surface Water Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-1	L	.0029	.0029	DET	.	mg/L	@
1990	10OCT90	E-2	L	.0028	.0028	DET	.	mg/L	@
1990	10OCT90	E-3	L	.0048	.0048	DET	.	mg/L	@

--------- Site=Pond E MEDIA=Surface Water Analyte=Lead Method=SW7421 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-4	L	.	.001	ND	.002	mg/L	
1990	10OCT90	E-5	L	.	.001	ND	.002	mg/L	
1990	10OCT90	E-6	L	.	.001	ND	.002	mg/L	

N = 6

---- Site=Pond E MEDIA=Surface Water Analyte=Lead (organic) Method=E239.1 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-1	L	.	0.05	ND	0.1	mg/L	
1990	10OCT90	E-2	L	.	0.05	ND	0.1	mg/L	
1990	10OCT90	E-3	L	0.1	0.10	DET	.	mg/L	@
1990	10OCT90	E-4	L	.	0.05	ND	0.1	mg/L	
1990	10OCT90	E-5	L	.	0.05	ND	0.1	mg/L	
1990	10OCT90	E-6	L	.	0.05	ND	0.1	mg/L	

N = 6

------- Site=Pond E MEDIA=Surface Water Analyte=Manganese Method=SW6010 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-1	L	0.039	0.039	DET	.	mg/L	@
1990	10OCT90	E-2	L	0.021	0.021	DET	.	mg/L	@
1990	10OCT90	E-3	L	0.033	0.033	DET	.	mg/L	@
1990	10OCT90	E-4	L	0.038	0.038	DET	.	mg/L	@
1990	10OCT90	E-5	L	0.034	0.034	DET	.	mg/L	@
1990	10OCT90	E-6	L	0.037	0.037	DET	.	mg/L	@

N = 6

-------- Site=Pond E MEDIA=Surface Water Analyte=Mercury Method=SW7470 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-1	L	.00062	.00062	DET	.	mg/L	
1990	10OCT90	E-2	L	.00051	.00051	DET	.	mg/L	@
1990	10OCT90	E-3	L	.00051	.00051	DET	.	mg/L	@
1990	10OCT90	E-4	L	.00051	.00051	DET	.	mg/L	@
1990	10OCT90	E-5	L	.00040	.00040	DET	.	mg/L	@

-------- Site=Pond E MEDIA=Surface Water Analyte=Mercury Method=SW7470 --------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-6	L	.0004	.0004	DET	.	mg/L	@

N = 6

------- Site=Pond E MEDIA=Surface Water Analyte=Selenium Method=SW7740 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-1	L	.0055	.0055	DET	.	mg/L	@
1990	10OCT90	E-2	L	.0025	.0025	DET	.	mg/L	@
1990	10OCT90	E-3	L	.0042	.0042	DET	.	mg/L	@
1990	10OCT90	E-4	L	.0035	.0035	DET	.	mg/L	@
1990	10OCT90	E-5	L	.0024	.0024	DET	.	mg/L	@
1990	10OCT90	E-6	L	.	.0010	ND	.002	mg/L	

N = 6

-------- Site=Pond E MEDIA=Surface Water Analyte=Silicon Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-1	L	14	14	DET	.	mg/L	
1990	10OCT90	E-2	L	10	10	DET	.	mg/L	
1990	10OCT90	E-3	L	14	14	DET	.	mg/L	
1990	10OCT90	E-4	L	15	15	DET	.	mg/L	
1990	10OCT90	E-5	L	14	14	DET	.	mg/L	
1990	10OCT90	E-6	L	15	15	DET	.	mg/L	

N = 6

Site=Pond E MEDIA=Surface Water Analyte=bis(2-Ethylhexyl)phthalate Method=SW827

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	10OCT90	E-1	L	0.011	0.011	DET	.	mg/L	JB
1990	10OCT90	E-2	L	0.007	0.007	DET	.	mg/L	JB
1990	10OCT90	E-3	L	0.005	0.005	DET	.	mg/L	JB
1990	10OCT90	E-4	L	0.015	0.015	DET	.	mg/L	JB
1990	10OCT90	E-5	L	0.003	0.003	DET	.	mg/L	JB
1990	10OCT90	E-6	L	0.005	0.005	DET	.	mg/L	JB

N = 6

------- Site=Pond E MEDIA=Surface Water Analyte=gamma-BHC Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	07MAR93	E-01	L	.0000145	.0000145	DET	.0000095	mg/L	@

N = 1

---- Site=Pond E MEDIA=Surface Water Analyte=gamma-Chlordane Method=SW8080 ----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	07MAR93	E-01	L	.0000052	.0000052	OET	.0000095	mg/L	J

N = 1

---------- Site=Pond G MEDIA=Sludges Analyte=4,4'-DDO Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.40000	0.40000	DET	0.0016	mg/kg	C
1992	26FEB92	G-02	S	3.10000	3.10000	DET	0.0320	mg/kg	C
1992	26FEB92	G-03	S	0.30000	0.30000	DET	0.0410	mg/kg	C
1992	26FEB92	G-04	S	0.98000	0.98000	DET	0.0370	mg/kg	C
1992	26FEB92	G-05	S	0.10000	0.10000	DET	0.0250	mg/kg	C@
1992	26FEB92	G-06	S	0.07000	0.07000	DET	0.0700	mg/kg	
1994	04NOV94	03G	S	0.43000	0.43000	DET	0.0630	mg/kg	V
1994	04NOV94	04G	S	0.00400	0.00400	DET	0.0053	mg/kg	VJ
1994	04NOV94	05G	S	0.05000	0.05000	DET	0.0088	mg/kg	V
1994	04NOV94	07G	S	0.15000	0.15000	DET	0.0310	mg/kg	V
1994	04NOV94	08G	S	0.07300	0.07300	DET	0.0130	mg/kg	V
1994	04NOV94	09G	S	0.05700	0.05700	DET	0.0120	mg/kg	V
1994	04NOV94	10G	S	0.14000	0.14000	DET	0.0300	mg/kg	V
1994	04NOV94	11G	S	0.00190	0.00190	DET	0.0088	mg/kg	J
1994	04NOV94	12G	S	0.02400	0.02400	DET	0.0140	mg/kg	V
1994	04NOV94	13G	S	0.02000	0.02000	DET	0.0060	mg/kg	
1994	04NOV94	14G	S	0.00600	0.00600	DET	0.0120	mg/kg	J
1994	05NOV94	15G	S	0.00200	0.00200	DET	0.0280	mg/kg	J
1994	05NOV94	16G	S	0.01500	0.01500	DET	0.0110	mg/kg	V
1994	05NOV94	17G	S	0.00320	0.00320	DET	0.0160	mg/kg	VJ
1994	05NOV94	18G	S	0.01200	0.01200	DET	0.0140	mg/kg	VJ
1994	04NOV94	01G	S	.	0.00012	ND	0.0055	mg/kg	
1994	04NOV94	02G	S	0.00061	0.00061	DET	0.0052	mg/kg	J
1994	04NOV94	06G	S	.	0.00001	ND	0.0052	mg/kg	
1994	05NOV94	19G	S	0.00013	0.00013	DET	0.0065	mg/kg	J

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=4,4'-DDE Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.0360	0.03600	DET	0.0016	mg/kg	C
1992	26FEB92	G-02	S	0.4500	0.45000	DET	0.0320	mg/kg	X
1992	26FEB92	G-03	S	0.1400	0.14000	DET	0.0410	mg/kg	C@
1992	26FEB92	G-04	S	0.2900	0.29000	DET	0.0370	mg/kg	X
1992	26FEB92	G-05	S	0.0830	0.08300	DET	0.0250	mg/kg	C@
1992	26FEB92	G-06	S	0.0700	0.07000	DET	0.0700	mg/kg	
1994	04NOV94	03G	S	0.0770	0.07700	DET	0.0630	mg/kg	V
1994	04NOV94	04G	S	0.0012	0.00120	DET	0.0053	mg/kg	J
1994	04NOV94	05G	S	0.0440	0.04400	DET	0.0088	mg/kg	V
1994	04NOV94	07G	S	0.0970	0.09700	DET	0.0310	mg/kg	V
1994	04NOV94	08G	S	0.0570	0.05700	DET	0.0130	mg/kg	V
1994	04NOV94	09G	S	0.0970	0.09700	DET	0.0120	mg/kg	V
1994	04NOV94	10G	S	0.0340	0.03400	DET	0.0300	mg/kg	V
1994	04NOV94	11G	S	0.0011	0.00110	DET	0.0088	mg/kg	J
1994	04NOV94	12G	S	0.0270	0.02700	DET	0.0140	mg/kg	
1994	04NOV94	13G	S	0.0270	0.02700	DET	0.0060	mg/kg	V
1994	04NOV94	14G	S	0.0110	0.01100	DET	0.0120	mg/kg	VJ
1994	05NOV94	15G	S	.	0.00002	ND	0.0280	mg/kg	
1994	05NOV94	16G	S	0.0390	0.03900	DET	0.0110	mg/kg	
1994	05NOV94	17G	S	0.0018	0.00180	DET	0.0160	mg/kg	J
1994	05NOV94	18G	S	0.0085	0.00850	DET	0.0140	mg/kg	J
1994	04NOV94	01G	S	.	0.00008	ND	0.0055	mg/kg	
1994	04NOV94	02G	S	.	0.00040	ND	0.0052	mg/kg	
1994	04NOV94	06G	S	.	0.00035	ND	0.0052	mg/kg	
1994	05NOV94	19G	S	.	0.00108	ND	0.0065	mg/kg	

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=4,4'-DDT Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.027	0.02700	DET	0.0032	mg/kg	C
1992	26FEB92	G-02	S	0.120	0.12000	DET	0.0640	mg/kg	C@
1992	26FEB92	G-03	S	0.083	0.08300	DET	0.0830	mg/kg	
1992	26FEB92	G-04	S	0.074	0.07400	DET	0.0740	mg/kg	
1992	26FEB92	G-05	S	0.049	0.04900	DET	0.0490	mg/kg	
1992	26FEB92	G-06	S	0.140	0.14000	DET	0.1400	mg/kg	
1994	04NOV94	03G	S	.	0.04994	ND	0.0630	mg/kg	V
1994	04NOV94	04G	S	.	0.00192	ND	0.0053	mg/kg	
1994	04NOV94	05G	S	.	0.00464	ND	0.0088	mg/kg	
1994	04NOV94	07G	S	.	0.00056	ND	0.0310	mg/kg	
1994	04NOV94	08G	S	.	0.00807	ND	0.0130	mg/kg	
1994	04NOV94	09G	S	.	0.00776	ND	0.0120	mg/kg	
1994	04NOV94	10G	S	.	0.00910	ND	0.0300	mg/kg	V
1994	04NOV94	11G	S	.	0.00603	ND	0.0088	mg/kg	

---------- Site=Pond G MEDIA=Sludges Analyte=4,4'-DDT Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	04NOV94	12G	S	.	0.002542	ND	0.0140	mg/kg	
1994	04NOV94	13G	S	.	0.000234	ND	0.0060	mg/kg	
1994	04NOV94	14G	S	.	0.010037	ND	0.0120	mg/kg	
1994	05NOV94	15G	S	.	0.017806	ND	0.0280	mg/kg	V
1994	05NOV94	16G	S	0.026	0.026000	DET	0.0110	mg/kg	
1994	05NOV94	17G	S	.	0.012940	ND	0.0160	mg/kg	V
1994	05NOV94	18G	S	.	0.002727	ND	0.0140	mg/kg	V
1994	04NOV94	01G	S	.	0.001973	ND	0.0055	mg/kg	
1994	04NOV94	02G	S	.	0.004749	ND	0.0052	mg/kg	
1994	04NOV94	06G	S	.	0.004860	ND	0.0052	mg/kg	
1994	05NOV94	19G	S	.	0.002310	ND	0.0065	mg/kg	V

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=Acetone Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.087	0.0870	DET	0.16	mg/kg	J
1992	26FEB92	G-02	S	.	3.5625	ND	6.40	mg/kg	
1992	26FEB92	G-03	S	.	6.2250	ND	8.30	mg/kg	
1992	26FEB92	G-04	S	.	5.6250	ND	7.50	mg/kg	
1992	26FEB92	G-05	S	.	3.6750	ND	4.90	mg/kg	
1992	26FEB92	G-06	S	.	10.5000	ND	14.00	mg/kg	

N = 6

-------- Site=Pond G MEDIA=Sludges Analyte=Acetophenone Method=SW8270 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	1.60	1.60	DET	1.6	mg/kg	
1992	26FEB92	G-02	S	0.85	0.85	DET	3.2	mg/kg	J
1992	26FEB92	G-03	S	4.10	4.10	DET	4.1	mg/kg	
1992	26FEB92	G-04	S	3.70	3.70	DET	3.7	mg/kg	
1992	26FEB92	G-05	S	2.40	2.40	DET	2.4	mg/kg	
1992	26FEB92	G-06	S	6.90	6.90	DET	6.9	mg/kg	

N = 6

---------- Site=Pond G MEDIA=Sludges Analyte=Arsenic Method=SW7060 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	1.40	1.40	DET	0.47	mg/kg	@
1992	26FEB92	G-02	S	3.30	3.30	DET	0.95	mg/kg	@
1992	26FEB92	G-03	S	2.30	2.30	DET	1.10	mg/kg	@
1992	26FEB92	G-04	S	1.80	1.80	DET	1.30	mg/kg	@
1992	26FEB92	G-05	S	1.30	1.30	DET	0.83	mg/kg	@
1992	26FEB92	G-06	S	2.40	2.40	OET	2.10	mg/kg	@
1994	04NOV94	03G	S	2.40	2.40	DET	0.95	mg/kg	
1994	04NOV94	04G	S	2.10	2.10	DET	0.80	mg/kg	
1994	04NOV94	05G	S	4.20	4.20	DET	6.70	mg/kg	J
1994	04NOV94	07G	S	3.20	3.20	DET	0.94	mg/kg	
1994	04NOV94	08G	S	5.20	5.20	DET	10.00	mg/kg	J
1994	04NOV94	09G	S	3.10	3.10	DET	3.80	mg/kg	J
1994	04NOV94	10G	S	4.60	4.60	DET	1.80	mg/kg	
1994	04NOV94	11G	S	1.80	1.80	DET	2.70	mg/kg	J
1994	04NOV94	12G	S	2.00	2.00	DET	4.30	mg/kg	J
1994	04NOV94	13G	S	4.00	4.00	DET	0.90	mg/kg	
1994	04NOV94	14G	S	3.40	3.40	DET	3.60	mg/kg	J
1994	05NOV94	15G	S	3.60	3.60	DET	4.20	mg/kg	J
1994	05NOV94	16G	S	2.60	2.60	DET	1.70	mg/kg	
1994	05NOV94	17G	S	2.70	2.70	DET	4.90	mg/kg	J
1994	05NOV94	18G	S	3.20	3.20	DET	4.10	mg/kg	J
1994	04NOV94	01G	S	0.60	0.60	DET	0.83	mg/kg	J
1994	04NOV94	02G	S	0.62	0.62	DET	0.79	mg/kg	J
1994	04NOV94	06G	S	2.40	2.40	DET	3.90	mg/kg	J
1994	05NOV94	19G	S	1.30	1.30	DET	2.00	mg/kg	J

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=Barium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	81.0	81.0	DET	4.8	mg/kg	
1992	26FEB92	G-02	S	120.0	120.0	DET	2.4	mg/kg	
1992	26FEB92	G-03	S	92.0	92.0	DET	3.0	mg/kg	
1992	26FEB92	G-04	S	85.0	85.0	DET	3.0	mg/kg	
1992	26FEB92	G-05	S	65.0	65.0	DET	1.8	mg/kg	
1992	26FEB92	G-06	S	83.0	83.0	DET	6.2	mg/kg	
1994	04NOV94	03G	S	93.2	93.2	DET	1.9	mg/kg	
1994	04NOV94	04G	S	59.8	59.8	DET	1.6	mg/kg	
1994	04NOV94	05G	S	95.5	95.5	DET	2.7	mg/kg	
1994	04NOV94	07G	S	119.0	119.0	DET	1.9	mg/kg	
1994	04NOV94	08G	S	76.2	76.2	DET	4.0	mg/kg	
1994	04NOV94	09G	S	120.0	120.0	DET	3.8	mg/kg	
1994	04NOV94	10G	S	70.1	70.1	DET	1.8	mg/kg	
1994	04NOV94	11G	S	94.4	94.4	DET	2.7	mg/kg	

---------- Site=Pond G MEDIA=Sludges Analyte=Barium Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	04NOV94	12G	S	124.0	124.0	DET	4.3	mg/kg	
1994	04NOV94	13G	S	90.2	90.2	DET	1.8	mg/kg	
1994	04NOV94	14G	S	60.5	60.5	DET	3.6	mg/kg	
1994	05NOV94	15G	S	54.3	54.3	DET	8.4	mg/kg	
1994	05NOV94	16G	S	85.1	85.1	DET	3.4	mg/kg	
1994	05NOV94	17G	S	54.9	54.9	DET	4.9	mg/kg	
1994	05NOV94	18G	S	156.0	156.0	DET	4.1	mg/kg	
1994	04NOV94	01G	S	34.7	34.7	DET	3.3	mg/kg	
1994	04NOV94	02G	S	63.8	63.8	DET	3.2	mg/kg	
1994	04NOV94	06G	S	51.9	51.9	DET	3.1	mg/kg	
1994	05NOV94	19G	S	69.7	69.7	DET	4.0	mg/kg	

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=Beryllium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.	0.71250	ND	0.95	mg/kg	
1992	26FEB92	G-02	S	0.68	0.68000	DET	0.49	mg/kg	@
1992	26FEB92	G-03	S	.	0.45750	ND	0.61	mg/kg	
1992	26FEB92	G-04	S	.	0.45750	ND	0.61	mg/kg	
1992	26FEB92	G-05	S	.	0.27000	ND	0.36	mg/kg	
1992	26FEB92	G-06	S	.	0.90000	ND	1.20	mg/kg	
1994	04NOV94	03G	S	0.38	0.38000	DET	0.38	mg/kg	
1994	04NOV94	04G	S	0.28	0.28000	DET	0.32	mg/kg	J
1994	04NOV94	05G	S	0.30	0.30000	DET	0.54	mg/kg	J
1994	04NOV94	07G	S	0.49	0.49000	DET	0.38	mg/kg	
1994	04NOV94	08G	S	0.46	0.46000	DET	0.80	mg/kg	J
1994	04NOV94	09G	S	0.54	0.54000	DET	0.75	mg/kg	J
1994	04NOV94	10G	S	0.26	0.26000	DET	0.36	mg/kg	J
1994	04NOV94	11G	S	0.39	0.39000	DET	0.53	mg/kg	J
1994	04NOV94	12G	S	.	0.09684	ND	0.85	mg/kg	
1994	04NOV94	13G	S	0.25	0.25000	DET	0.36	mg/kg	J
1994	04NOV94	14G	S	.	0.12146	ND	0.73	mg/kg	
1994	05NOV94	15G	S	.	0.14263	ND	1.70	mg/kg	
1994	05NOV94	16G	S	.	0.19004	ND	0.68	mg/kg	
1994	05NOV94	17G	S	.	0.13797	ND	0.98	mg/kg	
1994	05NOV94	18G	S	.	0.04473	ND	0.83	mg/kg	
1994	04NOV94	01G	S	.	0.13877	ND	0.67	mg/kg	
1994	04NOV94	02G	S	.	0.24520	ND	0.63	mg/kg	
1994	04NDV94	06G	S	.	0.11938	ND	0.63	mg/kg	
1994	05NOV94	19G	S	.	0.13357	ND	0.79	mg/kg	

N = 25

------ Site=Pond G MEDIA=Sludges Analyte=Carbon disulfide Method=SW8240 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.037	0.037	DET	0.0079	mg/kg	@
1992	26FEB92	G-02	S	0.235	0.235	DET	0.3200	mg/kg	
1992	26FEB92	G-03	S	0.410	0.410	DET	0.4100	mg/kg	
1992	26FEB92	G-04	S	0.370	0.370	DET	0.3700	mg/kg	
1992	26FEB92	G-05	S	0.250	0.250	DET	0.2500	mg/kg	
1992	26FEB92	G-06	S	0.700	0.700	DET	0.7000	mg/kg	

N = 6

---------- Site=Pond G MEDIA=Sludges Analyte=Chlordane Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	04NOV94	03G	S	.	0.000856	ND	0.3200	mg/kg	
1994	04NOV94	04G	S	.	0.004228	ND	0.0270	mg/kg	
1994	04NOV94	05G	S	0.036	0.036000	DET	0.0460	mg/kg	J
1994	04NOV94	07G	S	0.010	0.010000	DET	0.1600	mg/kg	J
1994	04NOV94	08G	S	.	0.003416	ND	0.0680	mg/kg	
1994	04NOV94	09G	S	.	0.009499	ND	0.0640	mg/kg	
1994	04NOV94	10G	S	.	0.000951	ND	0.1500	mg/kg	
1994	04NOV94	11G	S	.	0.001744	ND	0.0450	mg/kg	
1994	04NOV94	12G	S	.	0.003124	ND	0.0730	mg/kg	
1994	04NOV94	13G	S	.	0.007647	ND	0.0310	mg/kg	
1994	04NOV94	14G	S	0.034	0.034000	DET	0.0620	mg/kg	J
1994	05NOV94	15G	S	.	0.003919	ND	0.0280	mg/kg	
1994	05NOV94	16G	S	.	0.006495	ND	0.0110	mg/kg	
1994	05NOV94	17G	S	.	0.001093	ND	0.0160	mg/kg	
1994	05NOV94	18G	S	.	0.003143	ND	0.0140	mg/kg	
1994	04NOV94	01G	S	.	0.006536	ND	0.0280	mg/kg	
1994	04NOV94	02G	S	.	0.003743	ND	0.0270	mg/kg	
1994	04NOV94	06G	S	.	0.005952	ND	0.0270	mg/kg	
1994	05NOV94	19G	S	.	0.008592	ND	0.0065	mg/kg	

N = 19

---------- Site=Pond G MEDIA=Sludges Analyte=Chromium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	9	9	DET	4.8	mg/kg	@
1992	26FEB92	G-02	S	18	18	DET	2.4	mg/kg	
1992	26FEB92	G-03	S	15	15	DET	3.0	mg/kg	
1992	26FEB92	G-04	S	15	15	DET	3.0	mg/kg	
1992	26FEB92	G-05	S	10	10	DET	1.8	mg/kg	

---------- Site=Pond G MEDIA=Sludges Analyte=Chromium Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-06	S	16.0	16.0000	DET	6.2	mg/kg	@
1994	04NOV94	03G	S	8.3	8.3000	DET	1.9	mg/kg	
1994	04NOV94	04G	S	4.1	4.1000	DET	1.6	mg/kg	
1994	04NOV94	05G	S	9.8	9.8000	DET	2.7	mg/kg	
1994	04NOV94	07G	S	10.1	10.1000	DET	1.9	mg/kg	
1994	04NOV94	08G	S	14.0	14.0000	DET	4.0	mg/kg	
1994	04NOV94	09G	S	14.1	14.1000	DET	3.8	mg/kg	
1994	04NOV94	10G	S	4.8	4.8000	DET	1.8	mg/kg	
1994	04NOV94	11G	S	6.1	6.1000	DET	2.7	mg/kg	
1994	04NOV94	12G	S	12.9	12.9000	DET	4.3	mg/kg	
1994	04NOV94	13G	S	6.9	6.9000	DET	1.8	mg/kg	
1994	04NOV94	14G	S	6.0	6.0000	DET	3.6	mg/kg	
1994	05NOV94	15G	S	21.2	21.2000	DET	8.4	mg/kg	
1994	05NOV94	16G	S	9.6	9.6000	DET	3.4	mg/kg	
1994	05NOV94	17G	S	7.6	7.6000	DET	4.9	mg/kg	
1994	05NOV94	18G	S	20.2	20.2000	DET	4.1	mg/kg	
1994	04NOV94	01G	S	.	0.3007	ND	3.3	mg/kg	
1994	04NOV94	02G	S	1.3	1.3000	DET	3.2	mg/kg	J
1994	04NOV94	06G	S	.	1.2052	ND	3.1	mg/kg	
1994	05NOV94	19G	S	2.0	2.0000	DET	4.0	mg/kg	J

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=Cobalt Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	4.8	4.8	DET	4.8	mg/kg	
1992	26FEB92	G-02	S	5.4	5.4	DET	2.4	mg/kg	@
1992	26FEB92	G-03	S	3.4	3.4	DET	3.0	mg/kg	@
1992	26FEB92	G-04	S	3.6	3.6	DET	3.0	mg/kg	@
1992	26FEB92	G-05	S	2.7	2.7	DET	1.8	mg/kg	@
1992	26FEB92	G-06	S	6.2	6.2	DET	6.2	mg/kg	
1994	04NOV94	03G	S	3.7	3.7	DET	1.9	mg/kg	
1994	04NOV94	04G	S	1.9	1.9	DET	1.6	mg/kg	
1994	04NOV94	05G	S	4.2	4.2	DET	2.7	mg/kg	
1994	04NOV94	07G	S	4.3	4.3	DET	1.9	mg/kg	
1994	04NOV94	08G	S	4.4	4.4	DET	4.0	mg/kg	
1994	04NOV94	09G	S	5.0	5.0	DET	3.8	mg/kg	
1994	04NOV94	10G	S	2.3	2.3	DET	1.8	mg/kg	
1994	04NOV94	11G	S	2.4	2.4	DET	2.7	mg/kg	J
1994	04NOV94	12G	S	4.9	4.9	DET	4.3	mg/kg	
1994	04NOV94	13G	S	2.6	2.6	DET	1.8	mg/kg	
1994	04NOV94	14G	S	2.8	2.8	DET	3.6	mg/kg	J
1994	05NOV94	15G	S	3.7	3.7	DET	8.4	mg/kg	J

---------- Site=Pond G MEDIA=Sludges Analyte=Cobalt Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	05NOV94	16G	S	3.2	3.20000	DET	3.4	mg/kg	J
1994	05NOV94	17G	S	2.0	2.00000	DET	4.9	mg/kg	J
1994	05NOV94	18G	S	5.8	5.80000	DET	4.1	mg/kg	
1994	04NOV94	01G	S	.	0.82754	ND	3.3	mg/kg	
1994	04NOV94	02G	S	1.2	1.20000	DET	3.2	mg/kg	J
1994	04NOV94	06G	S	1.1	1.10000	DET	3.1	mg/kg	J
1994	05NOV94	19G	S	.	0.74821	ND	4.0	mg/kg	

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=Copper Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.	7.125	ND	9.5	mg/kg	
1992	26FEB92	G-02	S	24.0	24.000	DET	4.9	mg/kg	@
1992	26FEB92	G-03	S	20.0	20.000	DET	6.1	mg/kg	@
1992	26FEB92	G-04	S	21.0	21.000	DET	6.1	mg/kg	@
1992	26FEB92	G-05	S	19.0	19.000	DET	3.6	mg/kg	
1992	26FEB92	G-06	S	23.0	23.000	DET	12.0	mg/kg	@
1994	04NOV94	03G	S	11.3	11.300	DET	3.8	mg/kg	
1994	04NOV94	04G	S	6.3	6.300	DET	3.2	mg/kg	
1994	04NOV94	05G	S	21.3	21.300	DET	5.4	mg/kg	
1994	04NOV94	07G	S	12.0	12.000	DET	3.8	mg/kg	
1994	04NOV94	08G	S	28.3	28.300	DET	8.0	mg/kg	
1994	04NOV94	09G	S	25.0	25.000	DET	7.5	mg/kg	
1994	04NOV94	10G	S	7.8	7.800	DET	3.6	mg/kg	
1994	04NOV94	11G	S	12.6	12.600	DET	5.3	mg/kg	
1994	04NOV94	12G	S	29.3	29.300	DET	8.5	mg/kg	
1994	04NOV94	13G	S	7.9	7.900	DET	3.6	mg/kg	
1994	04NOV94	14G	S	16.4	16.400	DET	7.3	mg/kg	
1994	05NOV94	15G	S	36.8	36.800	DET	16.8	mg/kg	
1994	05NOV94	16G	S	15.3	15.300	DET	6.8	mg/kg	
1994	05NOV94	17G	S	20.0	20.000	DET	9.8	mg/kg	
1994	05NOV94	18G	S	26.5	26.500	DET	8.3	mg/kg	
1994	04NOV94	01G	S	1.2	1.200	DET	6.7	mg/kg	J
1994	04NOV94	02G	S	2.9	2.900	DET	6.3	mg/kg	J
1994	04NOV94	06G	S	2.1	2.100	DET	6.3	mg/kg	J
1994	05NOV94	19G	S	4.5	4.500	DET	7.9	mg/kg	J

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=Cyanide Method=SW9012 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	1.10	1.10	DET	0.28	mg/kg	@
1992	26FEB92	G-02	S	0.66	0.66	DET	0.66	mg/kg	
1992	26FEB92	G-03	S	0.91	0.91	DET	0.91	mg/kg	
1992	26FEB92	G-04	S	0.81	0.81	DET	0.81	mg/kg	
1992	26FEB92	G-05	S	0.50	0.50	DET	0.50	mg/kg	
1992	26FEB92	G-06	S	5.60	5.60	DET	1.60	mg/kg	@

N = 6

---------- Site=Pond G MEDIA=Sludges Analyte=Dieldrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	04NOV94	03G	S	.	.00035261	ND	0.0630	mg/kg	
1994	04NOV94	04G	S	.	.00046794	ND	0.0053	mg/kg	
1994	04NOV94	05G	S	.	.00018178	ND	0.0088	mg/kg	V
1994	04NOV94	07G	S	.	.00006454	ND	0.0310	mg/kg	V
1994	04NOV94	08G	S	.	.00049350	ND	0.0130	mg/kg	
1994	04NOV94	09G	S	.	.00017171	ND	0.0120	mg/kg	V
1994	04NOV94	10G	S	.	.00031781	ND	0.0300	mg/kg	
1994	04NOV94	11G	S	.	.00023233	ND	0.0088	mg/kg	
1994	04NOV94	12G	S	.	.00033194	ND	0.0140	mg/kg	
1994	04NOV94	13G	S	.	.00024669	ND	0.0060	mg/kg	
1994	04NOV94	14G	S	.00052	.00052000	DET	0.0120	mg/kg	VJ
1994	05NOV94	15G	S	.	.00043433	ND	0.0280	mg/kg	
1994	05NOV94	16G	S	.	.00035184	ND	0.0110	mg/kg	
1994	05NOV94	17G	S	.	.00038227	ND	0.0160	mg/kg	
1994	05NOV94	18G	S	.	.00037033	ND	0.0140	mg/kg	
1994	04NOV94	01G	S	.	.00004970	ND	0.0055	mg/kg	
1994	04NOV94	02G	S	.	.00051975	ND	0.0052	mg/kg	
1994	04NOV94	06G	S	.	.00012628	ND	0.0052	mg/kg	
1994	05NOV94	19G	S	.	.00037917	ND	0.0065	mg/kg	

N = 19

----- Site=Pond G MEDIA=Sludges Analyte=Heptachlor epoxide Method=SW8080 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	04NOV94	03G	S	.	.0000051	ND	0.0320	mg/kg	
1994	04NOV94	04G	S	.	.0000055	ND	0.0027	mg/kg	
1994	04NOV94	05G	S	.00079	.0007900	DET	0.0046	mg/kg	VJ
1994	04NOV94	07G	S	.	.0000051	ND	0.0160	mg/kg	
1994	04NOV94	08G	S	.00160	.0016000	DET	0.0068	mg/kg	VJ

----- Site=Pond G MEDIA=Sludges Analyte=Heptachlor epoxide Method=SW8080 ------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	04NOV94	09G	S	.	.00001757	ND	0.0064	mg/kg	
1994	04NOV94	10G	S	.	.00001540	ND	0.0150	mg/kg	
1994	04NOV94	11G	S	.	.00000166	ND	0.0045	mg/kg	
1994	04NOV94	12G	S	.	.00000845	ND	0.0073	mg/kg	
1994	04NOV94	13G	S	.	.00000984	ND	0.0031	mg/kg	
1994	04NOV94	14G	S	.000620	.00062000	DET	0.0062	mg/kg	J
1994	05NOV94	15G	S	.	.00001337	ND	0.0140	mg/kg	
1994	05NOV94	16G	S	.000022	.00002200	DET	0.0057	mg/kg	J
1994	05NOV94	17G	S	.	.00000818	ND	0.0083	mg/kg	
1994	05NOV94	18G	S	.	.00000057	ND	0.0070	mg/kg	
1994	04NOV94	01G	S	.	.00000788	ND	0.0028	mg/kg	
1994	04NOV94	02G	S	.	.00000883	ND	0.0027	mg/kg	
1994	04NOV94	06G	S	.	.00000570	ND	0.0027	mg/kg	
1994	05NOV94	19G	S	.	.00000311	ND	0.0034	mg/kg	

N = 19

---------- Site=Pond G MEDIA=Sludges Analyte=Kepone Method=MRI-SOP ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	04NOV94	03G	S	.	.0051341	ND	0.07	mg/kg	
1994	04NOV94	04G	S	.	.0055280	ND	0.07	mg/kg	
1994	04NOV94	07G	S	.	.0010588	ND	0.07	mg/kg	
1994	04NOV94	08G	S	.	.0068400	ND	0.07	mg/kg	
1994	04NOV94	10G	S	.	.0037356	ND	0.07	mg/kg	
1994	04NOV94	11G	S	.	.0022825	ND	0.07	mg/kg	
1994	04NOV94	12G	S	.	.0032242	ND	0.07	mg/kg	
1994	04NOV94	13G	S	.	.0066336	ND	0.07	mg/kg	
1994	05NOV94	15G	S	.	.0037475	ND	0.07	mg/kg	
1994	05NOV94	17G	S	.	.0023320	ND	0.07	mg/kg	
1994	04NOV94	01G	S	.	.0048007	ND	0.07	mg/kg	
1994	05NOV94	19G	S	.007	.0070000	DET	0.07	mg/kg	J

N = 12

------- Site=Pond G MEDIA=Sludges Analyte=Kepone (Mirex) Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.0017	0.00170	DET	0.0016	mg/kg	X@
1992	26FEB92	G-02	S	.	0.02400	ND	0.0320	mg/kg	
1992	26FEB92	G-03	S	.	0.03075	ND	0.0410	mg/kg	

------- Site=Pond G MEDIA=Sludges Analyte=Kepone (Mirex) Method=SW8080 --------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-04	S	.	0.02775	ND	0.037	mg/kg	
1992	26FEB92	G-05	S	.	0.01875	ND	0.025	mg/kg	
1992	26FEB92	G-06	S	.	0.05250	ND	0.070	mg/kg	

N = 6

---------- Site=Pond G MEDIA=Sludges Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	5.80	5.80	DET	0.36	mg/kg	
1992	26FEB92	G-02	S	280.50	280.50	DET	28.00	mg/kg	
1992	26FEB92	G-03	S	23.00	23.00	DET	1.70	mg/kg	
1992	26FEB92	G-04	S	38.00	38.00	DET	1.90	mg/kg	
1992	26FEB92	G-05	S	15.00	15.00	DET	1.20	mg/kg	
1992	26FEB92	G-06	S	27.00	27.00	DET	1.60	mg/kg	
1994	04NOV94	03G	S	26.60	26.60	DET	4.70	mg/kg	
1994	04NOV94	04G	S	4.60	4.60	DET	8.00	mg/kg	J
1994	04NOV94	05G	S	28.70	28.70	DET	2.70	mg/kg	
1994	04NOV94	07G	S	12.50	12.50	DET	4.70	mg/kg	
1994	04NOV94	08G	S	28.10	28.10	DET	2.00	mg/kg	
1994	04NOV94	09G	S	26.30	26.30	DET	3.80	mg/kg	
1994	04NOV94	10G	S	10.50	10.50	DET	9.10	mg/kg	
1994	04NOV94	11G	S	6.30	6.30	DET	2.70	mg/kg	
1994	04NOV94	12G	S	25.60	25.60	DET	4.30	mg/kg	
1994	04NOV94	13G	S	7.80	7.80	DET	4.50	mg/kg	
1994	04NOV94	14G	S	12.50	12.50	DET	9.10	mg/kg	
1994	05NOV94	15G	S	29.40	29.40	DET	21.00	mg/kg	
1994	05NOV94	16G	S	20.10	20.10	DET	8.50	mg/kg	
1994	05NOV94	17G	S	16.60	16.60	DET	12.20	mg/kg	
1994	05NOV94	18G	S	14.50	14.50	DET	2.10	mg/kg	
1994	04NOV94	01G	S	0.62	0.62	DET	1.70	mg/kg	J
1994	04NOV94	02G	S	0.62	0.62	DET	1.60	mg/kg	J
1994	04NOV94	06G	S	0.57	0.57	DET	1.60	mg/kg	J
1994	05NOV94	19G	S	0.55	0.55	DET	4.00	mg/kg	J

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=Mercury Method=SW7471 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.	0.05325	ND	0.071	mg/kg	

---------- Site=Pond G MEDIA=Sludges Analyte=Mercury Method=SW7471 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-02	S	0.15	0.15000	DET	0.15	mg/kg	@
1992	26FEB92	G-03	S	.	0.14250	ND	0.19	mg/kg	
1992	26FEB92	G-04	S	0.18	0.18000	DET	0.17	mg/kg	@
1992	26FEB92	G-05	S	.	0.08250	ND	0.11	mg/kg	
1992	26FEB92	G-06	S	.	0.24000	ND	0.32	mg/kg	
1994	04NOV94	03G	S	.	0.17642	ND	0.19	mg/kg	
1994	04NOV94	04G	S	.	0.06940	ND	0.16	mg/kg	
1994	04NOV94	05G	S	.	0.05784	ND	0.27	mg/kg	
1994	04NOV94	07G	S	.	0.02817	ND	0.19	mg/kg	
1994	04NOV94	08G	S	.	0.24787	ND	0.40	mg/kg	
1994	04NOV94	09G	S	.	0.20694	ND	0.38	mg/kg	
1994	04NOV94	10G	S	.	0.30387	ND	0.18	mg/kg	
1994	04NOV94	11G	S	.	0.06117	ND	0.27	mg/kg	
1994	04NOV94	12G	S	.	0.11078	ND	0.43	mg/kg	
1994	04NOV94	13G	S	.	0.22098	ND	0.18	mg/kg	
1994	04NOV94	14G	S	0.32	0.32000	DET	0.36	mg/kg	J
1994	05NOV94	15G	S	.	0.13000	ND	0.84	mg/kg	
1994	05NOV94	16G	S	.	0.01111	ND	0.34	mg/kg	
1994	05NOV94	17G	S	.	0.13762	ND	0.49	mg/kg	
1994	05NOV94	18G	S	.	0.27451	ND	0.41	mg/kg	
1994	04NOV94	01G	S	.	0.04889	ND	0.18	mg/kg	
1994	04NOV94	02G	S	.	0.03719	ND	0.16	mg/kg	
1994	04NOV94	06G	S	.	0.19997	ND	0.16	mg/kg	
1994	05NOV94	19G	S	.	0.23847	ND	0.20	mg/kg	

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=Nickel Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.	7.125	ND	9.5	mg/kg	
1992	26FEB92	G-02	S	12.0	12.000	DET	4.9	mg/kg	@
1992	26FEB92	G-03	S	6.9	6.900	DET	6.1	mg/kg	@
1992	26FEB92	G-04	S	10.0	10.000	DET	6.1	mg/kg	@
1992	26FEB92	G-05	S	5.6	5.600	DET	3.6	mg/kg	@
1992	26FEB92	G-06	S	.	9.000	ND	12.0	mg/kg	
1994	04NOV94	03G	S	7.5	7.500	DET	7.6	mg/kg	J
1994	04NOV94	04G	S	3.5	3.500	DET	6.4	mg/kg	J
1994	04NOV94	05G	S	7.9	7.900	DET	10.7	mg/kg	J
1994	04NOV94	07G	S	9.0	9.000	DET	7.5	mg/kg	
1994	04NOV94	08G	S	10.9	10.900	DET	16.0	mg/kg	J
1994	04NOV94	09G	S	11.3	11.300	DET	15.0	mg/kg	J
1994	04NOV94	10G	S	4.9	4.900	DET	7.2	mg/kg	J
1994	04NOV94	11G	S	5.5	5.500	DET	10.7	mg/kg	J

---------- Site=Pond G MEDIA=Sludges Analyte=Nickel Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	04NOV94	12G	S	10.8	10.8000	DET	17.1	mg/kg	J
1994	04NOV94	13G	S	6.4	6.4000	DET	7.2	mg/kg	J
1994	04NOV94	14G	S	7.6	7.6000	DET	14.5	mg/kg	J
1994	05NOV94	15G	S	8.0	8.0000	DET	33.6	mg/kg	J
1994	05NOV94	16G	S	7.5	7.5000	DET	13.5	mg/kg	J
1994	05NOV94	17G	S	6.4	6.4000	DET	19.5	mg/kg	J
1994	05NOV94	18G	S	14.2	14.2000	DET	16.5	mg/kg	J
1994	04NOV94	01G	S	.	2.0648	ND	13.3	mg/kg	
1994	04NOV94	02G	S	.	0.7623	ND	12.7	mg/kg	
1994	04NOV94	06G	S	2.9	2.9000	DET	12.6	mg/kg	J
1994	05NOV94	19G	S	.	1.5712	ND	15.8	mg/kg	

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=Selenium Method=SW7740 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.	0.44250	ND	0.59	mg/kg	
1992	26FEB92	G-02	S	.	1.03333	ND	1.20	mg/kg	
1992	26FEB92	G-03	S	.	1.05000	ND	1.40	mg/kg	
1992	26FEB92	G-04	S	.	1.20000	ND	1.60	mg/kg	
1992	26FEB92	G-05	S	.	0.75000	ND	1.00	mg/kg	
1992	26FEB92	G-06	S	.	1.95000	ND	2.60	mg/kg	
1994	04NOV94	03G	S	0.55	0.55000	DET	0.95	mg/kg	J
1994	04NOV94	04G	S	0.19	0.19000	DET	0.80	mg/kg	J
1994	04NOV94	05G	S	1.20	1.20000	DET	2.70	mg/kg	J
1994	04NOV94	07G	S	0.73	0.73000	DET	1.90	mg/kg	J
1994	04NOV94	08G	S	2.10	2.10000	DET	2.00	mg/kg	
1994	04NOV94	09G	S	2.20	2.20000	DET	1.90	mg/kg	
1994	04NOV94	10G	S	0.45	0.45000	DET	0.91	mg/kg	J
1994	04NOV94	11G	S	1.00	1.00000	DET	2.70	mg/kg	J
1994	04NOV94	12G	S	2.00	2.00000	DET	4.30	mg/kg	J
1994	04NOV94	13G	S	0.20	0.20000	DET	0.90	mg/kg	J
1994	04NOV94	14G	S	.	0.01407	ND	3.60	mg/kg	
1994	05NOV94	15G	S	1.90	1.90000	DET	4.20	mg/kg	J
1994	05NOV94	16G	S	1.10	1.10000	DET	1.70	mg/kg	J
1994	05NOV94	17G	S	1.50	1.50000	DET	2.40	mg/kg	J
1994	05NOV94	18G	S	1.30	1.30000	DET	2.10	mg/kg	J
1994	04NOV94	01G	S	.	0.07287	ND	1.70	mg/kg	
1994	04NOV94	02G	S	0.35	0.35000	DET	0.79	mg/kg	J
1994	04NOV94	06G	S	0.22	0.22000	DET	0.79	mg/kg	J
1994	05NOV94	19G	S	0.45	0.45000	DET	0.99	mg/kg	J

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=Silver Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	04NOV94	03G	S	0.96	0.96000	DET	1.9	mg/kg	J
1994	04NOV94	04G	S	.	0.54562	ND	1.6	mg/kg	
1994	04NOV94	05G	S	3.70	3.70000	DET	2.7	mg/kg	
1994	04NOV94	07G	S	.	0.02931	ND	1.9	mg/kg	
1994	04NOV94	08G	S	5.80	5.80000	DET	4.0	mg/kg	
1994	04NOV94	09G	S	5.80	5.80000	DET	3.8	mg/kg	
1994	04NOV94	10G	S	.	0.25467	ND	1.8	mg/kg	
1994	04NOV94	11G	S	1.70	1.70000	DET	2.7	mg/kg	J
1994	04NOV94	12G	S	6.60	6.60000	DET	4.3	mg/kg	
1994	04NOV94	13G	S	.	0.62475	ND	1.8	mg/kg	
1994	04NOV94	14G	S	3.00	3.00000	DET	3.6	mg/kg	J
1994	05NOV94	15G	S	5.10	5.10000	DET	8.4	mg/kg	J
1994	05NOV94	16G	S	1.80	1.80000	DET	3.4	mg/kg	J
1994	05NOV94	17G	S	2.20	2.20000	DET	4.9	mg/kg	J
1994	05NOV94	18G	S	4.30	4.30000	DET	4.1	mg/kg	
1994	04NOV94	01G	S	.	0.32198	ND	3.3	mg/kg	
1994	04NOV94	02G	S	.	0.55249	ND	3.2	mg/kg	
1994	04NOV94	06G	S	.	0.84270	ND	3.1	mg/kg	
1994	05NOV94	19G	S	.	0.16060	ND	4.0	mg/kg	

N = 19

---------- Site=Pond G MEDIA=Sludges Analyte=Sulfide Method=SW9030 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	50	50	DET	39	mg/kg	@
1992	26FEB92	G-02	S	780	780	DET	77	mg/kg	
1992	26FEB92	G-03	S	540	540	DET	100	mg/kg	
1992	26FEB92	G-04	S	2000	2000	DET	91	mg/kg	
1992	26FEB92	G-05	S	61	61	DET	61	mg/kg	
1992	26FEB92	G-06	S	1300	1300	DET	170	mg/kg	

N = 6

---------- Site=Pond G MEDIA=Sludges Analyte=Vanadium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	15	15	DET	9.5	mg/kg	@
1992	26FEB92	G-02	S	30	30	DET	4.9	mg/kg	
1992	26FEB92	G-03	S	25	25	DET	6.1	mg/kg	@
1992	26FEB92	G-04	S	26	26	DET	6.1	mg/kg	@
1992	26FEB92	G-05	S	15	15	DET	3.6	mg/kg	@

---------- Site=Pond G MEDIA=Sludges Analyte=Vanadium Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-06	S	24.0	24.0	DET	12.0	mg/kg	@
1994	04NOV94	03G	S	17.4	17.4	DET	1.9	mg/kg	
1994	04NOV94	04G	S	10.7	10.7	DET	1.6	mg/kg	
1994	04NOV94	05G	S	22.1	22.1	DET	2.7	mg/kg	
1994	04NOV94	07G	S	21.3	21.3	DET	1.9	mg/kg	
1994	04NOV94	08G	S	25.8	25.8	DET	4.0	mg/kg	
1994	04NOV94	09G	S	26.7	26.7	DET	3.8	mg/kg	
1994	04NOV94	10G	S	12.6	12.6	DET	1.8	mg/kg	
1994	04NOV94	11G	S	16.1	16.1	DET	2.7	mg/kg	
1994	04NOV94	12G	S	31.2	31.2	DET	4.3	mg/kg	
1994	04NOV94	13G	S	17.0	17.0	DET	1.8	mg/kg	
1994	04NOV94	14G	S	17.4	17.4	DET	3.6	mg/kg	
1994	05NOV94	15G	S	33.0	33.0	DET	8.4	mg/kg	
1994	05NOV94	16G	S	19.6	19.6	DET	3.4	mg/kg	
1994	05NOV94	17G	S	19.8	19.8	DET	4.9	mg/kg	
1994	05NOV94	18G	S	38.3	38.3	DET	4.1	mg/kg	
1994	04NOV94	01G	S	3.5	3.5	DET	3.3	mg/kg	
1994	04NOV94	02G	S	5.0	5.0	DET	3.2	mg/kg	
1994	04NOV94	06G	S	10.2	10.2	DET	3.1	mg/kg	
1994	05NOV94	19G	S	14.4	14.4	DET	4.0	mg/kg	

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	26.0	26.0	DET	9.5	mg/kg	@
1992	26FEB92	G-02	S	66.0	66.0	DET	4.9	mg/kg	
1992	26FEB92	G-03	S	49.0	49.0	DET	6.1	mg/kg	
1992	26FEB92	G-04	S	53.0	53.0	DET	6.1	mg/kg	
1992	26FEB92	G-05	S	30.0	30.0	DET	3.6	mg/kg	
1992	26FEB92	G-06	S	50.0	50.0	DET	12.0	mg/kg	@
1994	04NOV94	03G	S	44.2	44.2	DET	7.6	mg/kg	
1994	04NOV94	04G	S	24.7	24.7	DET	6.4	mg/kg	
1994	04NOV94	05G	S	67.3	67.3	DET	5.4	mg/kg	
1994	04NOV94	07G	S	51.6	51.6	DET	3.8	mg/kg	
1994	04NOV94	08G	S	68.2	68.2	DET	8.0	mg/kg	
1994	04NOV94	09G	S	68.4	68.4	DET	7.5	mg/kg	
1994	04NOV94	10G	S	32.3	32.3	DET	7.2	mg/kg	
1994	04NOV94	11G	S	24.1	24.1	DET	5.3	mg/kg	
1994	04NOV94	12G	S	67.8	67.8	DET	8.5	mg/kg	
1994	04NOV94	13G	S	35.1	35.1	DET	7.2	mg/kg	
1994	04NOV94	14G	S	37.0	37.0	DET	7.3	mg/kg	
1994	05NOV94	15G	S	59.4	59.4	DET	16.8	mg/kg	

---------- Site=Pond G MEDIA=Sludges Analyte=Zinc Method=SW6010 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	05NOV94	16G	S	36.7	36.7	DET	6.8	mg/kg	
1994	05NOV94	17G	S	39.7	39.7	DET	9.8	mg/kg	
1994	05NOV94	18G	S	65.5	65.5	DET	8.3	mg/kg	
1994	04NOV94	01G	S	4.9	4.9	DET	6.7	mg/kg	J
1994	04NOV94	02G	S	9.3	9.3	DET	6.3	mg/kg	
1994	04NOV94	06G	S	11.3	11.3	DET	6.3	mg/kg	
1994	05NOV94	19G	S	10.5	10.5	DET	7.9	mg/kg	

N = 25

---------- Site=Pond G MEDIA=Sludges Analyte=alpha-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.001600	0.001600	DET	0.0016	mg/kg	
1992	26FEB92	G-02	S	0.032000	0.032000	DET	0.0320	mg/kg	
1992	26FEB92	G-03	S	0.079000	0.079000	DET	0.0410	mg/kg	C@
1992	26FEB92	G-04	S	0.077000	0.077000	DET	0.0370	mg/kg	C@
1992	26FEB92	G-05	S	0.025000	0.025000	DET	0.0250	mg/kg	
1992	26FEB92	G-06	S	0.070000	0.070000	DET	0.0700	mg/kg	
1994	04NOV94	03G	S	.	0.000004	ND	0.0320	mg/kg	
1994	04NOV94	04G	S	.	0.000013	ND	0.0027	mg/kg	
1994	04NOV94	05G	S	.	0.000018	ND	0.0046	mg/kg	
1994	04NOV94	07G	S	.	0.000006	ND	0.0160	mg/kg	
1994	04NOV94	08G	S	.	0.000005	ND	0.0068	mg/kg	
1994	04NOV94	09G	S	.	0.000022	ND	0.0064	mg/kg	
1994	04NOV94	10G	S	.	0.000000	ND	0.0150	mg/kg	
1994	04NOV94	11G	S	.	0.000023	ND	0.0045	mg/kg	
1994	04NOV94	12G	S	.	0.000012	ND	0.0073	mg/kg	
1994	04NOV94	13G	S	.	0.000008	ND	0.0031	mg/kg	
1994	04NOV94	14G	S	.	0.000020	ND	0.0062	mg/kg	
1994	05NOV94	15G	S	.	0.000020	ND	0.0140	mg/kg	
1994	05NOV94	16G	S	0.000190	0.000190	DET	0.0057	mg/kg	J
1994	05NOV94	17G	S	.	0.000005	ND	0.0083	mg/kg	
1994	05NOV94	18G	S	0.000023	0.000023	DET	0.0070	mg/kg	J
1994	04NOV94	01G	S	.	0.000012	ND	0.0028	mg/kg	V
1994	04NOV94	02G	S	.	0.000004	ND	0.0027	mg/kg	
1994	04NOV94	06G	S	.	0.000006	ND	0.0027	mg/kg	V
1994	05NOV94	19G	S	.	0.000014	ND	0.0034	mg/kg	

N = 25

------- Site=Pond G MEDIA=Sludges Analyte=alpha-Chlordane Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.0096	0.0096	DET	0.0016	mg/kg	X
1992	26FEB92	G-02	S	0.1100	0.1100	DET	0.0320	mg/kg	X@
1992	26FEB92	G-03	S	0.0410	0.0410	DET	0.0410	mg/kg	
1992	26FEB92	G-04	S	0.0370	0.0370	DET	0.0370	mg/kg	
1992	26FEB92	G-05	S	0.0110	0.0110	DET	0.0250	mg/kg	JX
1992	26FEB92	G-06	S	0.0700	0.0700	DET	0.0700	mg/kg	

N = 6

- Site=Pond G MEDIA=Sludges Analyte=bis(2-Ethylhexyl)phthalate Method=SW8270 --

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.69	0.69	DET	1.6	mg/kg	JB
1992	26FEB92	G-02	S	1.30	1.30	DET	3.2	mg/kg	J
1992	26FEB92	G-03	S	0.58	0.58	DET	4.1	mg/kg	J
1992	26FEB92	G-04	S	3.90	3.90	DET	3.7	mg/kg	@
1992	26FEB92	G-05	S	1.70	1.70	DET	2.4	mg/kg	J
1992	26FEB92	G-06	S	3.80	3.80	DET	6.9	mg/kg	J

N = 6

---------- Site=Pond G MEDIA=Sludges Analyte=delta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	04NOV94	03G	S	.	.00033137	ND	0.0320	mg/kg	
1994	04NOV94	04G	S	.	.00044400	ND	0.0027	mg/kg	
1994	04NOV94	05G	S	.	.00020668	ND	0.0046	mg/kg	
1994	04NOV94	07G	S	.	.00008216	ND	0.0160	mg/kg	
1994	04NOV94	08G	S	.	.00007472	ND	0.0068	mg/kg	
1994	04NOV94	09G	S	.	.00049828	ND	0.0064	mg/kg	
1994	04NOV94	10G	S	.	.00014934	ND	0.0150	mg/kg	
1994	04NOV94	11G	S	.	.00008503	ND	0.0045	mg/kg	
1994	04NOV94	12G	S	.	.00013784	ND	0.0073	mg/kg	
1994	04NOV94	13G	S	.	.00001692	ND	0.0031	mg/kg	
1994	04NOV94	14G	S	.	.00002789	ND	0.0062	mg/kg	
1994	05NOV94	15G	S	.	.00044809	ND	0.0140	mg/kg	
1994	05NOV94	16G	S	.	.00042417	ND	0.0057	mg/kg	
1994	05NOV94	17G	S	.00083	.00083000	DET	0.0083	mg/kg	VJ
1994	05NOV94	18G	S	.00051	.00051000	DET	0.0070	mg/kg	J
1994	04NOV94	01G	S	.	.00038824	ND	0.0028	mg/kg	
1994	04NOV94	02G	S	.	.00044095	ND	0.0027	mg/kg	
1994	04NOV94	06G	S	.	.00008353	ND	0.0027	mg/kg	

---------- Site=Pond G MEDIA=Sludges Analyte=delta-BHC Method=SW8080 ----------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	05NOV94	19G	S	.	.00025480	ND	.0034	mg/kg	

N = 19

---------- Site=Pond G MEDIA=Sludges Analyte=gamma-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1994	04NOV94	03G	S	.	.00001964	ND	0.0320	mg/kg	
1994	04NOV94	04G	S	.	.00013411	ND	0.0027	mg/kg	
1994	04NOV94	05G	S	.00015	.00015000	DET	0.0046	mg/kg	J
1994	04NOV94	07G	S	.	.00002219	ND	0.0160	mg/kg	
1994	04NOV94	08G	S	.	.00009634	ND	0.0068	mg/kg	
1994	04NOV94	09G	S	.	.00008272	ND	0.0064	mg/kg	
1994	04NOV94	10G	S	.	.00010605	ND	0.0150	mg/kg	
1994	04NOV94	11G	S	.	.00005441	ND	0.0045	mg/kg	
1994	04NOV94	12G	S	.00017	.00017000	DET	0.0073	mg/kg	J
1994	04NOV94	13G	S	.	.00006621	ND	0.0031	mg/kg	
1994	04NOV94	14G	S	.	.00004657	ND	0.0062	mg/kg	
1994	05NOV94	15G	S	.	.00007972	ND	0.0140	mg/kg	
1994	05NOV94	16G	S	.	.00007692	ND	0.0057	mg/kg	
1994	05NOV94	17G	S	.	.00007014	ND	0.0083	mg/kg	
1994	05NOV94	18G	S	.	.00003756	ND	0.0070	mg/kg	
1994	04NOV94	01G	S	.	.00011053	ND	0.0028	mg/kg	
1994	04NOV94	02G	S	.	.00012243	ND	0.0027	mg/kg	
1994	04NOV94	06G	S	.	.00013774	ND	0.0027	mg/kg	
1994	05NOV94	19G	S	.	.00006357	ND	0.0034	mg/kg	

N = 19

------- Site=Pond G MEDIA=Sludges Analyte=gamma-Chlordane Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.028	0.028	DET	0.0016	mg/kg	X
1992	26FEB92	G-02	S	0.310	0.310	DET	0.0320	mg/kg	X
1992	26FEB92	G-03	S	0.060	0.060	DET	0.0410	mg/kg	X@
1992	26FEB92	G-04	S	0.037	0.037	DET	0.0370	mg/kg	
1992	26FEB92	G-05	S	0.025	0.025	DET	0.0250	mg/kg	
1992	26FEB92	G-06	S	0.070	0.070	DET	0.0700	mg/kg	

N = 6

---------- Site=Pond G MEDIA=Soils Analyte=4,4'-DDD Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.0075	.0075	DET	.0015	mg/kg	C
1992	26FEB92	G-02	S	.0038	.0038	DET	.0014	mg/kg	C@
1992	26FEB92	G-02	S	.0015	.0015	DET	.0015	mg/kg	
1992	26FEB92	G-03	S	.0048	.0048	DET	.0016	mg/kg	C@
1992	26FEB92	G-04	S	.0069	.0069	DET	.0015	mg/kg	C@
1992	26FEB92	G-05	S	.0016	.0016	DET	.0016	mg/kg	
1992	26FEB92	G-05	S	.0014	.0014	DET	.0014	mg/kg	
1992	26FEB92	G-06	S	.0013	.0013	DET	.0013	mg/kg	

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=4,4'-DDE Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.0015	.0015	DET	.0015	mg/kg	
1992	26FEB92	G-02	S	.0014	.0014	DET	.0014	mg/kg	
1992	26FEB92	G-02	S	.0015	.0015	DET	.0015	mg/kg	
1992	26FEB92	G-03	S	.0016	.0016	DET	.0016	mg/kg	
1992	26FEB92	G-04	S	.0031	.0031	DET	.0015	mg/kg	X@
1992	26FEB92	G-05	S	.0016	.0016	DET	.0016	mg/kg	
1992	26FEB92	G-05	S	.0014	.0014	DET	.0014	mg/kg	
1992	26FEB92	G-06	S	.0025	.0025	DET	.0013	mg/kg	X@

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Acetone Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.140	0.14000	DET	0.15	mg/kg	J
1992	26FEB92	G-02	S	0.103	0.10300	DET	0.15	mg/kg	J
1992	26FEB92	G-02	S	.	0.10875	ND	0.15	mg/kg	
1992	26FEB92	G-03	S	.	0.12000	ND	0.16	mg/kg	
1992	26FEB92	G-04	S	0.047	0.04700	DET	0.15	mg/kg	J
1992	26FEB92	G-05	S	.	0.12000	ND	0.16	mg/kg	
1992	26FEB92	G-05	S	0.063	0.06300	DET	0.14	mg/kg	J
1992	26FEB92	G-06	S	.	0.09750	ND	0.13	mg/kg	

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Arsenic Method=SW7060 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	1.70	1.70	DET	0.51	mg/kg	@
1992	26FEB92	G-02	S	1.85	1.85	DET	0.45	mg/kg	@
1992	26FEB92	G-02	S	1.85	1.85	DET	0.53	mg/kg	@
1992	26FEB92	G-03	S	1.60	1.60	DET	0.49	mg/kg	@
1992	26FEB92	G-04	S	3.10	3.10	DET	0.91	mg/kg	@
1992	26FEB92	G-05	S	1.60	1.60	DET	0.51	mg/kg	@
1992	26FEB92	G-05	S	1.50	1.50	DET	0.94	mg/kg	@
1992	26FEB92	G-06	S	1.30	1.30	DET	0.38	mg/kg	@

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Barium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	100	100	DET	4.5	mg/kg	
1992	26FEB92	G-02	S	130	130	DET	4.3	mg/kg	
1992	26FEB92	G-02	S	130	130	DET	4.8	mg/kg	
1992	26FEB92	G-03	S	140	140	DET	5.4	mg/kg	
1992	26FEB92	G-04	S	180	180	DET	4.3	mg/kg	
1992	26FEB92	G-05	S	120	120	DET	4.5	mg/kg	
1992	26FEB92	G-05	S	180	180	DET	4.2	mg/kg	
1992	26FEB92	G-06	S	100	100	DET	4.0	mg/kg	

N = 8

----- Site=Pond G MEDIA=Soils Analyte=Butylbenzylphthalate Method=SW8270 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	1.50	1.50	DET	1.5	mg/kg	
1992	26FEB92	G-02	S	1.40	1.40	DET	1.4	mg/kg	
1992	26FEB92	G-02	S	0.88	0.88	DET	1.5	mg/kg	J
1992	26FEB92	G-03	S	1.60	1.60	DET	1.6	mg/kg	
1992	26FEB92	G-04	S	1.50	1.50	DET	1.5	mg/kg	
1992	26FEB92	G-05	S	1.60	1.60	DET	1.6	mg/kg	
1992	26FEB92	G-05	S	1.40	1.40	DET	1.4	mg/kg	
1992	26FEB92	G-06	S	1.30	1.30	DET	1.3	mg/kg	

N = 8

------- Site=Pond G MEDIA=Soils Analyte=Carbon disulfide Method=SW8240 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.	0.005625	ND	.0075	mg/kg	
1992	26FEB92	G-02	S	0.0150	0.015000	DET	.0073	mg/kg	@
1992	26FEB92	G-02	S	.	0.005550	ND	.0077	mg/kg	
1992	26FEB92	G-03	S	0.0034	0.003400	DET	.0079	mg/kg	J
1992	26FEB92	G-04	S	0.0020	0.002000	DET	.0075	mg/kg	J
1992	26FEB92	G-05	S	.	0.006000	ND	.0080	mg/kg	
1992	26FEB92	G-05	S	.	0.005400	ND	.0072	mg/kg	
1992	26FEB92	G-06	S	0.0130	0.013000	DET	.0067	mg/kg	@

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Chromium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	10.0	10.0	DET	4.5	mg/kg	@
1992	26FEB92	G-02	S	9.3	9.3	DET	4.3	mg/kg	@
1992	26FEB92	G-02	S	14.0	14.0	DET	4.8	mg/kg	@
1992	26FEB92	G-03	S	11.0	11.0	DET	5.4	mg/kg	@
1992	26FEB92	G-04	S	14.0	14.0	DET	4.3	mg/kg	@
1992	26FEB92	G-05	S	8.5	8.5	DET	4.5	mg/kg	@
1992	26FEB92	G-05	S	16.0	16.0	DET	4.2	mg/kg	@
1992	26FEB92	G-06	S	11.0	11.0	DET	4.0	mg/kg	@

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Cobalt Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.	3.375	ND	4.5	mg/kg	
1992	26FEB92	G-02	S	.	3.225	ND	4.3	mg/kg	
1992	26FEB92	G-02	S	.	3.600	ND	4.8	mg/kg	
1992	26FEB92	G-03	S	.	4.050	ND	5.4	mg/kg	
1992	26FEB92	G-04	S	4.4	4.400	DET	4.3	mg/kg	@
1992	26FEB92	G-05	S	.	3.375	ND	4.5	mg/kg	
1992	26FEB92	G-05	S	4.6	4.600	DET	4.2	mg/kg	@
1992	26FEB92	G-06	S	.	3.000	ND	4.0	mg/kg	

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Copper Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.	6.750	ND	9.0	mg/kg	
1992	26FEB92	G-02	S	.	6.525	ND	8.7	mg/kg	
1992	26FEB92	G-02	S	.	7.200	ND	9.6	mg/kg	
1992	26FEB92	G-03	S	.	8.250	ND	11.0	mg/kg	
1992	26FEB92	G-04	S	.	6.450	ND	8.6	mg/kg	
1992	26FEB92	G-05	S	.	6.750	ND	9.0	mg/kg	
1992	26FEB92	G-05	S	9.8	9.800	DET	8.3	mg/kg	@
1992	26FEB92	G-06	S	.	6.000	ND	8.0	mg/kg	

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Cyanide Method=SW9012 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.59	0.59	DET	0.27	mg/kg	@
1992	26FEB92	G-02	S	0.28	0.28	DET	0.28	mg/kg	
1992	26FEB92	G-02	S	0.33	0.33	DET	0.33	mg/kg	
1992	26FEB92	G-03	S	0.30	0.30	DET	0.30	mg/kg	
1992	26FEB92	G-04	S	0.61	0.61	DET	0.36	mg/kg	@
1992	26FEB92	G-05	S	0.31	0.31	DET	0.31	mg/kg	
1992	26FEB92	G-05	S	0.29	0.29	DET	0.29	mg/kg	
1992	26FEB92	G-06	S	0.61	0.61	DET	0.29	mg/kg	@

N = 8

--------- Site=Pond G MEDIA=Soils Analyte=Cyclohexenone Method=SW8270 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-05	S	1.2	1.2	DET	.	mg/kg	

N = 1

------ Site=Pond G MEDIA=Soils Analyte=Di-n-octylphthalate Method=SW8270 ------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	1.50	1.50	DET	1.5	mg/kg	
1992	26FEB92	G-02	S	1.40	1.40	DET	1.4	mg/kg	
1992	26FEB92	G-02	S	0.23	0.23	DET	1.5	mg/kg	J
1992	26FEB92	G-03	S	1.60	1.60	DET	1.6	mg/kg	

------ Site=Pond G MEDIA=Soils Analyte=Di-n-octylphthalate Method=SW8270 ------
(continued)

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-04	S	1.5	1.5	DET	1.5	mg/kg	
1992	26FEB92	G-05	S	1.6	1.6	DET	1.6	mg/kg	
1992	26FEB92	G-05	S	1.4	1.4	DET	1.4	mg/kg	
1992	26FEB92	G-06	S	1.3	1.3	DET	1.3	mg/kg	

N = 8

------ Site=Pond G MEDIA=Soils Analyte=Endosulfan sulfate Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.00019	.00019	DET	.0074	mg/kg	JX
1992	26FEB92	G-02	S	.00070	.00070	DET	.0072	mg/kg	JX
1992	26FEB92	G-02	S	.00210	.00210	DET	.0077	mg/kg	JC
1992	26FEB92	G-03	S	.00120	.00120	DET	.0078	mg/kg	JC
1992	26FEB92	G-04	S	.00120	.00120	DET	.0075	mg/kg	JC
1992	26FEB92	G-05	S	.00120	.00120	DET	.0079	mg/kg	JC
1992	26FEB92	G-05	S	.00075	.00075	DET	.0072	mg/kg	JX
1992	26FEB92	G-06	S	.00090	.00090	DET	.0066	mg/kg	JC

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Heptachlor Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.0015	.0015	DET	.0015	mg/kg	
1992	26FEB92	G-02	S	.0014	.0014	DET	.0014	mg/kg	
1992	26FEB92	G-02	S	.0015	.0015	DET	.0015	mg/kg	
1992	26FEB92	G-03	S	.0016	.0016	DET	.0016	mg/kg	
1992	26FEB92	G-04	S	.0033	.0033	DET	.0015	mg/kg	X@
1992	26FEB92	G-05	S	.0016	.0016	DET	.0016	mg/kg	
1992	26FEB92	G-05	S	.0014	.0014	DET	.0014	mg/kg	
1992	26FEB92	G-06	S	.0013	.0013	DET	.0013	mg/kg	

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Isodrin Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.0015	.0015	DET	.0015	mg/kg	
1992	26FEB92	G-02	S	.0014	.0014	DET	.0014	mg/kg	
1992	26FEB92	G-02	S	.0015	.0015	DET	.0015	mg/kg	
1992	26FEB92	G-03	S	.0016	.0016	DET	.0016	mg/kg	
1992	26FEB92	G-04	S	.0015	.0015	DET	.0015	mg/kg	
1992	26FEB92	G-05	S	.0047	.0047	DET	.0016	mg/kg	X@
1992	26FEB92	G-05	S	.0014	.0014	DET	.0014	mg/kg	
1992	26FEB92	G-06	S	.0013	.0013	DET	.0013	mg/kg	

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	3.9	3.9	DET	0.38	mg/kg	
1992	26FEB92	G-02	S	2.8	2.8	DET	0.33	mg/kg	
1992	26FEB92	G-02	S	5.3	5.3	DET	0.40	mg/kg	
1992	26FEB92	G-03	S	4.5	4.5	DET	0.37	mg/kg	
1992	26FEB92	G-04	S	120.0	120.0	DET	13.00	mg/kg	
1992	26FEB92	G-05	S	3.9	3.9	DET	0.38	mg/kg	
1992	26FEB92	G-05	S	5.7	5.7	DET	0.35	mg/kg	
1992	26FEB92	G-06	S	4.8	4.8	DET	0.29	mg/kg	

N = 8

------ Site=Pond G MEDIA=Soils Analyte=Methylene chloride Method=SW8240 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.	0.005625	ND	.0075	mg/kg	
1992	26FEB92	G-02	S	.	0.014317	ND	.0073	mg/kg	
1992	26FEB92	G-02	S	0.0355	0.035500	DET	.0077	mg/kg	@
1992	26FEB92	G-03	S	0.0310	0.031000	DET	.0079	mg/kg	@
1992	26FEB92	G-04	S	0.0150	0.015000	DET	.0075	mg/kg	@
1992	26FEB92	G-05	S	0.0200	0.020000	DET	.0080	mg/kg	@
1992	26FEB92	G-05	S	.	0.005400	ND	.0072	mg/kg	
1992	26FEB92	G-06	S	0.0310	0.031000	DET	.0067	mg/kg	@

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Nickel Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	9.7	9.700	DET	9.0	mg/kg	@
1992	26FEB92	G-02	S	.	6.525	ND	8.7	mg/kg	
1992	26FEB92	G-02	S	.	7.200	ND	9.6	mg/kg	
1992	26FEB92	G-03	S	.	8.250	ND	11.0	mg/kg	
1992	26FEB92	G-04	S	9.0	9.000	DET	8.6	mg/kg	@
1992	26FEB92	G-05	S	.	6.750	ND	9.0	mg/kg	
1992	26FEB92	G-05	S	9.3	9.300	DET	8.3	mg/kg	@
1992	26FEB92	G-06	S	.	6.000	ND	8.0	mg/kg	

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Sulfide Method=SW9030 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	46	46	DET	36	mg/kg	@
1992	26FEB92	G-02	S	36	36	DET	36	mg/kg	
1992	26FEB92	G-02	S	48	48	DET	38	mg/kg	@
1992	26FEB92	G-03	S	47	47	DET	37	mg/kg	@
1992	26FEB92	G-04	S	100	100	DET	36	mg/kg	@
1992	26FEB92	G-05	S	82	82	DET	39	mg/kg	@
1992	26FEB92	G-05	S	45	45	DET	35	mg/kg	@
1992	26FEB92	G-06	S	92	92	DET	32	mg/kg	@

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Toluene Method=SW8240 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.00750	.00750	DET	.0075	mg/kg	
1992	26FEB92	G-02	S	.00730	.00730	DET	.0073	mg/kg	
1992	26FEB92	G-02	S	.00740	.00740	DET	.0077	mg/kg	
1992	26FEB92	G-03	S	.00440	.00440	DET	.0079	mg/kg	J
1992	26FEB92	G-04	S	.00260	.00260	DET	.0075	mg/kg	J
1992	26FEB92	G-05	S	.00410	.00410	DET	.0080	mg/kg	J
1992	26FEB92	G-05	S	.00058	.00058	DET	.0072	mg/kg	J
1992	26FEB92	G-06	S	.00280	.00280	DET	.0067	mg/kg	J

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Vanadium Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	20	20	DET	9.0	mg/kg	@
1992	26FEB92	G-02	S	17	17	DET	8.7	mg/kg	@
1992	26FEB92	G-02	S	22	22	DET	9.6	mg/kg	@
1992	26FEB92	G-03	S	23	23	DET	11.0	mg/kg	@
1992	26FEB92	G-04	S	29	29	DET	8.6	mg/kg	@
1992	26FEB92	G-05	S	16	16	DET	9.0	mg/kg	@
1992	26FEB92	G-05	S	29	29	DET	8.3	mg/kg	@
1992	26FEB92	G-06	S	18	18	DET	8.0	mg/kg	@

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	29	29	DET	9.0	mg/kg	@
1992	26FEB92	G-02	S	24	24	DET	8.7	mg/kg	@
1992	26FEB92	G-02	S	32	32	DET	9.6	mg/kg	@
1992	26FEB92	G-03	S	29	29	DET	11.0	mg/kg	@
1992	26FEB92	G-04	S	44	44	DET	8.6	mg/kg	
1992	26FEB92	G-05	S	23	23	DET	9.0	mg/kg	@
1992	26FEB92	G-05	S	43	43	DET	8.3	mg/kg	
1992	26FEB92	G-06	S	24	24	DET	8.0	mg/kg	@

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=alpha-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.0015	.0015	DET	.0015	mg/kg	
1992	26FEB92	G-02	S	.0033	.0033	DET	.0014	mg/kg	X@
1992	26FEB92	G-02	S	.0015	.0015	DET	.0015	mg/kg	
1992	26FEB92	G-03	S	.0016	.0016	DET	.0016	mg/kg	
1992	26FEB92	G-04	S	.0027	.0027	DET	.0015	mg/kg	X@
1992	26FEB92	G-05	S	.0016	.0016	DET	.0016	mg/kg	
1992	26FEB92	G-05	S	.0014	.0014	DET	.0014	mg/kg	
1992	26FEB92	G-06	S	.0024	.0024	DET	.0013	mg/kg	C@

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=beta-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.0019	0.0019	DET	.0015	mg/kg	X@
1992	26FEB92	G-02	S	0.0014	0.0014	DET	.0014	mg/kg	
1992	26FEB92	G-02	S	0.0015	0.0015	DET	.0015	mg/kg	
1992	26FEB92	G-03	S	0.0016	0.0016	DET	.0016	mg/kg	
1992	26FEB92	G-04	S	0.0046	0.0046	DET	.0015	mg/kg	CB@
1992	26FEB92	G-05	S	0.0110	0.0110	DET	.0016	mg/kg	XB
1992	26FEB92	G-05	S	0.0014	0.0014	DET	.0014	mg/kg	
1992	26FEB92	G-06	S	0.0013	0.0013	DET	.0013	mg/kg	CB@

N = 8

-- Site=Pond G MEDIA=Soils Analyte=bis(2-Ethylhexyl)phthalate Method=SW8270 ---

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	0.29	0.290	DET	1.5	mg/kg	JB
1992	26FEB92	G-02	S	2.10	2.100	DET	1.4	mg/kg	@
1992	26FEB92	G-02	S	.	1.125	ND	1.5	mg/kg	
1992	26FEB92	G-03	S	3.60	3.600	DET	1.6	mg/kg	@
1992	26FEB92	G-04	S	.	1.125	ND	1.5	mg/kg	
1992	26FEB92	G-05	S	0.31	0.310	DET	1.6	mg/kg	J
1992	26FEB92	G-05	S	.	1.050	ND	1.4	mg/kg	
1992	26FEB92	G-06	S	0.15	0.150	DET	1.3	mg/kg	J

N = 8

---------- Site=Pond G MEDIA=Soils Analyte=gamma-BHC Method=SW8080 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1992	26FEB92	G-01	S	.0015	.0015	DET	.0015	mg/kg	
1992	26FEB92	G-02	S	.0031	.0031	DET	.0014	mg/kg	X@
1992	26FEB92	G-02	S	.0027	.0027	DET	.0015	mg/kg	X@
1992	26FEB92	G-03	S	.0030	.0030	DET	.0016	mg/kg	C@
1992	26FEB92	G-04	S	.0015	.0015	DET	.0015	mg/kg	
1992	26FEB92	G-05	S	.0016	.0016	DET	.0016	mg/kg	
1992	26FEB92	G-05	S	.0014	.0014	DET	.0014	mg/kg	
1992	26FEB92	G-06	S	.0013	.0013	DET	.0013	mg/kg	

N = 8

-------- Site=Pond G MEDIA=Surface Water Analyte=Arsenic Method=SW7060 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-1	L	.0072	.0072	DET	.	mg/L	@
1990	09OCT90	G-2	L	.0055	.0055	DET	.	mg/L	@
1990	09OCT90	G-3	L	.0052	.0052	DET	.	mg/L	@
1990	09OCT90	G-4	L	.	.0015	ND	.003	mg/L	
1990	09OCT90	G-5	L	.	.0030	ND	.006	mg/L	

N = 5

-------- Site=Pond G MEDIA=Surface Water Analyte=Barium Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-1	L	0.033	0.033	DET	.	mg/L	@
1990	09OCT90	G-2	L	0.040	0.040	DET	.	mg/L	@
1990	09OCT90	G-3	L	0.036	0.036	DET	.	mg/L	@
1990	09OCT90	G-4	L	0.036	0.036	DET	.	mg/L	@
1990	09OCT90	G-5	L	0.035	0.035	DET	.	mg/L	@

N = 5

--------- Site=Pond G MEDIA=Surface Water Analyte=Boron Method=SW6010 ---------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-1	L	0.33	0.33	DET	.	mg/L	@
1990	09OCT90	G-2	L	0.36	0.36	DET	.	mg/L	@
1990	09OCT90	G-3	L	0.36	0.36	DET	.	mg/L	@
1990	09OCT90	G-4	L	0.33	0.33	DET	.	mg/L	@
1990	09OCT90	G-5	L	0.27	0.27	DET	.	mg/L	@

N = 5

----- Site=Pond G MEDIA=Surface Water Analyte=Endosulfan II Method=SW8080 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	05MAR93	G-01	L	.000001	.000001	DET	.000029	mg/L	J

N = 1

--------- Site=Pond G MEDIA=Surface Water Analyte=Lead Method=SW7421 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-1	L	.0027	.0027	DET	.	mg/L	
1990	09OCT90	G-2	L	.0032	.0032	DET	.	mg/L	@
1990	09OCT90	G-3	L	.0030	.0030	DET	.	mg/L	@
1990	09OCT90	G-4	L	.0029	.0029	DET	.	mg/L	@
1990	09OCT90	G-5	L	.0026	.0026	DET	.	mg/L	@

N = 5

---- Site=Pond G MEDIA=Surface Water Analyte=Lead (organic) Method=E239.1 -----

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-1	L	0.31	0.31	DET	.	mg/L	@
1990	09OCT90	G-2	L	0.27	0.27	DET	.	mg/L	@
1990	09OCT90	G-3	L	.	0.05	ND	0.1	mg/L	
1990	09OCT90	G-4	L	0.14	0.14	DET	.	mg/L	@
1990	09OCT90	G-5	L	0.14	0.14	DET	.	mg/L	@

N = 5

------- Site=Pond G MEDIA=Surface Water Analyte=Manganese Method=SW6010 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-1	L	0.064	0.064	DET	.	mg/L	
1990	09OCT90	G-2	L	0.071	0.071	DET	.	mg/L	
1990	09OCT90	G-3	L	0.064	0.064	DET	.	mg/L	
1990	09OCT90	G-4	L	0.072	0.072	DET	.	mg/L	
1990	09OCT90	G-5	L	0.061	0.061	DET	.	mg/L	

N = 5

-------- Site=Pond G MEDIA=Surface Water Analyte=Mercury Method=SW7470 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-1	L	.00022	.00022	DET	.	mg/L	@
1990	09OCT90	G-2	L	.00022	.00022	DET	.	mg/L	@
1990	09OCT90	G-3	L	.00022	.00022	DET	.	mg/L	@
1990	09OCT90	G-4	L	.00022	.00022	DET	.	mg/L	@
1990	09OCT90	G-5	L	.00022	.00022	DET	.	mg/L	@

N = 5

-------- Site=Pond G MEDIA=Surface Water Analyte=Silicon Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-1	L	14	14	DET	.	mg/L	
1990	09OCT90	G-2	L	16	16	DET	.	mg/L	
1990	09OCT90	G-3	L	16	16	DET	.	mg/L	
1990	09OCT90	G-4	L	15	15	DET	.	mg/L	
1990	09OCT90	G-5	L	15	15	DET	.	mg/L	

N = 5

------- Site=Pond G MEDIA=Surface Water Analyte=Vanadium Method=SW6010 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-1	L	.	.0010	ND	.002	mg/L	
1990	09OCT90	G-2	L	.0045	.0045	DET	.	mg/L	@
1990	09OCT90	G-3	L	.	.0015	ND	.003	mg/L	
1990	09OCT90	G-4	L	.0047	.0047	DET	.	mg/L	@
1990	09OCT90	G-5	L	.0033	.0033	DET	.	mg/L	@

N = 5

--------- Site=Pond G MEDIA=Surface Water Analyte=Zinc Method=SW6010 ----------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-1	L	0.0062	0.0062	DET	.	mg/L	@
1990	09OCT90	G-2	L	0.0057	0.0057	DET	.	mg/L	@
1990	09OCT90	G-3	L	0.0063	0.0063	DET	.	mg/L	@
1990	09OCT90	G-4	L	0.0140	0.0140	DET	.	mg/L	@
1990	09OCT90	G-5	L	0.0072	0.0072	DET	.	mg/L	@

N = 5

------- Site=Pond G MEDIA=Surface Water Analyte=alpha-BHC Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-3	L	.0002000	.0002000	DET	.	mg/L	J
1993	05MAR93	G-01	L	.0000076	.0000076	DET	.0000095	mg/L	J

N = 2

------- Site=Pond G MEDIA=Surface Water Analyte=beta-BHC Method=SW8080 --------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-3	L	.0006	.00060000	DET	.	mg/L	J
1993	05MAR93	G-01	L	.	.00000475	ND	.0000095	mg/L	

N = 2

Site=Pond G MEDIA=Surface Water Analyte=bis(2-Ethylhexyl)phthalate Method=SW827

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1990	09OCT90	G-1	L	0.006	0.006	DET	.	mg/L	JB
1990	09OCT90	G-2	L	0.008	0.008	DET	.	mg/L	JB
1990	09OCT90	G-3	L	0.005	0.005	DET	.	mg/L	JB
1990	09OCT90	G-4	L	0.005	0.005	DET	.	mg/L	JB
1990	09OCT90	G-5	L	0.010	0.010	DET	.	mg/L	JB

N = 5

------- Site=Pond G MEDIA=Surface Water Analyte=gamma-BHC Method=SW8080 -------

Year	Log Date	Location ID	Lab Matrix	Result	Est. Conc	Flag	Reporting Limit	Units	Lab Footnote
1993	05MAR93	G-01	L	.0000099	.0000099	DET	.0000095	mg/L	@

N = 1

APPENDIX D

Analytical Results and QA/QC of Biological Data

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Attachment A: GERG Data - Analytical Data for Biological Samples

Attachment B: GERG Data - Tabular Listing of Biological Data QC Results

D.1.0 INTRODUCTION

This report presents results of biota sampling and analysis associated with the Sewage Lagoons and Lakes Investigation conducted at Holloman Air Force Base (AFB). Results and findings for the surface water, groundwater, soil, and sediment samples analyzed earlier in this investigation are presented in the *Sampling and Quality Control Summary Report, Sewage Lagoons and Lakes Investigation (SQCSR)* (Radian, September 1993).

Overall, QA/QC data associated with this program indicate that measurement data are acceptable and defensible. Table D-1 provides an overview of the frequency of QC samples analyzed. Tables D-2 through D-5 summarize the results of the QC analyses in terms of achieving project precision and accuracy objectives. The QA/QC data indicate that QC mechanisms were effective in ensuring measurement data reliability within expected limits of sampling and analytical error. However, when interpreting the data the following potential limitations should be considered:

Pesticides and PCBs

- Of the two matrix spike analyses performed for 4,4'-DDE, one result was above the recovery objective and one was below the recovery objective, indicating a potential matrix interference for this analyte.

Dioxins and Furans

- Laboratory blank results indicate low-level laboratory contamination of 1,2,3,7,8-PeCDF. Reported field sample results may be biased slightly high for this analyte.
- Based on laboratory control sample recoveries for 2,3,4,7,8-PeCDF, reported field sample results for this analyte may be biased slightly high for this analyte.

Trace Elements

- Laboratory blank analysis results indicate laboratory contamination of silver, barium, and chromium. Reported results for these metals in specific samples may be biased slightly high.

Table D-1
Frequency of QC Samples Analyzed

Parameter	Number of Field Samples Analyzed	Laboratory Blanks		Laboratory Control Samples (LCS)		Matrix Spikes		Duplicate LCS		Laboratory Replicates	
		No.	Frequency (%)	No.	Frequency (%)	No.	Frequency (%)	No.	Frequency (%)	No.	Frequency (%)
PCB / Pesticides	19	1	6	2	10	2	10	0	0	6	33
Dioxins / Furans	16	2	13	2	12	2	12	0	0	6	38
Semivolatiles	19	2	11	2	10	2	10	0	0	4-5	21-26
Trace Elements	17	4	24	2-6	12-35	2	12	1-2	6-12	2	12

Table D-2
Summary of Analytes Detected in Blank Analyses

Analyte	Total Number of Blanks Analyzed	No. of Blank Results Above Detection Limit	Range of Concentrations Detected	Detection Limit	Potential Impact to Sample Results
Dioxins / Furans					
1,2,3,7,8-PeCDF	2	1	27.0 pg/g	25.0 pg/g	10 of 17 sample results may be false positives
Trace Elements					
Silver	4	1	0.01 ppm	0.007 ppm	Minimal
Barium	4	2	0.03-0.1 ppm	0.01 ppm	
Chromium	4	1	0.03 ppm	0.024 ppm	

Table D-3
Summary of Spike Recoveries[a]

Analyte	Recovery Objective (%)	No. of Analyses	Recoveries Above Objective		Recoveries Below Objective		Potential Impact to Sample Results
			Number	Range (%)	Number	Range (%)	
PCB / Pesticides (LCS)							
2,4'-DDD	40-120	2	0	NA	1	30.1	No trend indicated
4,4'-DDT		2	0	NA	1	35.7	
PCB / Pesticides (MS)							
Mirex	40-120	2	0	NA	1	26.3	No trend indicated
2,4'-DDE		2	0	NA	1	35.4	
2,4'-DDD		2	0	NA	1	23.3	
4,4'-DDD		2	0	NA	1	31.8	
2,4'-DDT		2	0	NA	1	23.9	
4,4'-DDT		2	0	NA	1	28.8	
4,4'-DDE		2	1	199	1	10.6	Potential matrix interference; no trend indicated
Dioxins / Furans (LCS)							
2,3,7,8-TCDF	40-120	2	1	123	0	NA	No trend indicated
1,2,3,4,7,8,9-HpCDF		2	1	129	0	NA	
OCDF		2	1	121	0	NA	
2,3,4,7,8-PeCDF		2	2	122	0	NA	Minimal high bias

Table D-3
(Continued)

Analyte	Recovery Objective (%)	No. of Analyses	Recoveries Above Objective		Recoveries Below Objective		Potential Impact to Sample Results
			Number	Range (%)	Number	Range (%)	
Dioxins / Furans (MS)							
2,3,7,8-TCDF	40-120	2	1	131	0	NA	No trend indicated
OCDF		2	1	125	0	NA	
2,3,7,8-TCDD		2	1	125	0	NA	
Semivolatiles (LCS)							
Pentachlorophenol	14-176	2	0	NA	1	12	No trend indicated
Semivolatiles (MS)							
1,2,4-Trichlorophenol	44-142	2	0	NA	1	41.6	No trend indicated
Acenaphthene	47-145	2	0	NA	1	46.6	
Pyrene	52-115	2	0	NA	1	27.8	
Metals (LCS)							
Nickel	80-120	6	1	155	0	NA	No trend indicated
Metals (MS)							
Magnesium	75-125	2	2	372-504	0	NA	None; spike concentration diluted out

[a] Only recoveries not meeting QC objectives are listed.

MS = Matrix Spike
LCS = Laboratory Control Sample
NA = Not Applicable

Table D-4
Summary of Surrogate Recoveries

Analyte	Type	Recovery Objective (%)	Total Analyzed	Number Exceeding Objective	Number Below Objective	Potential Impact to Sample Results
PCB / Pesticides						
DBOFB	Blanks	20-150	1	0	0	No trends or bias indicated: two or more surrogate compounds were recovered within project objectives for each analysis
	MS		2	0	0	
	LCS		2	0	0	
	Field		23	0	0	
PCB #103	Blanks	20-150	1	0	0	
	MS		2	0	0	
	LCS		2	0	0	
	Field		23	0	0	
PCB #198	Blanks	20-150	1	0	0	
	MS		2	0	0	
	LCS		2	0	0	
	Field		23	0	9	
Dioxins / Furans						
C_{13}-2,3,7,8-TCDF	Blanks	40-120	2	0	1	Minimal
	MS		2	0	1	
	LCS		2	0	0	
	Field		22	0	6	

Table D-4
(Continued)

Analyte	Type	Recovery Objective (%)	Total Analyzed	Number Exceeding Objective	Number Below Objective	Potential Impact to Sample Results
Dioxins / Furans (Continued)						
C_{13}-1,2,3,7,8-PeCDF	Blanks	40-120	2	0	2	Minimal
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	0	17	
C_{13}-2,3,4,7,8-PeCDF	Blanks	40-120	2	0	2	
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	0	17	
C_{13}-1,2,3,4,7,8-HxCDF	Blanks	40-120	2	0	1	
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	0	15	
C_{13}-1,2,3,6,7,8-HxCDF	Blanks	40-120	2	0	2	Minimal
	MS		2	0	2	
	LCS		2	0	1	
	Field		22	0	20	
C_{13}-1,2,3,7,8,9-HxCDF	Blanks	40-120	2	0	2	
	MS		2	0	1	
	LCS		2	0	1	
	Field		22	0	20	

Table D-4
(Continued)

Analyte	Type	Recovery Objective (%)	Total Analyzed	Number Exceeding Objective	Number Below Objective	Potential Impact to Sample Results
Dioxins / Furans (Continued)						
C_{13}-2,3,4,6,7,8-HxCDF	Blanks	40-120	2	0	2	Minimal
	MS		2	0	1	
	LCS		2	0	1	
	Field		22	0	22	
C_{13}-1,2,3,4,6,7,8-HpCDF	Blanks	40-120	2	0	2	
	MS		2	0	1	
	LCS		2	0	1	
	Field		22	0	21	
C_{13}-1,2,3,4,7,8,9-HpCDF	Blanks	40-120	2	0	2	
	MS		2	0	1	
	LCS		2	0	1	
	Field		22	0	19	
C_{13}-2,3,7,8-TCDD	Blanks	40-120	2	0	1	
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	0	12	
C_{13}-1,2,3,7,8-PeCDD	Blanks	40-120	2	0	2	
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	0	10	

Table D-4
(Continued)

Analyte	Type	Recovery Objective (%)	Total Analyzed	Number Exceeding Objective	Number Below Objective	Potential Impact to Sample Results
Dioxins / Furans (Continued)						
C_{13}-1,2,3,4,7,8-HxCDD	Blanks	40-120	2	0	1	Minimal
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	0	9	
C_{13}-1,2,3,6,7,8-HxCDD	Blanks	40-120	2	0	2	
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	0	17	
C_{13}-1,2,3,4,6,7,8-HpCDD	Blanks	40-120	2	0	2	
	MS		2	0	1	
	LCS		2	0	0	
	Field		22	0	19	
C_{13}-OCDD	Blanks	40-120	2	0	2	
	MS		2	0	2	
	LCS		2	0	2	
	Field		21	0	21	
Semivolatiles						
2-Fluorophenol	Blanks	25-121	2	0	0	None
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	0	0	

Table D-4
(Continued)

Analyte	Type	Recovery Objective (%)	Total Analyzed	Number Exceeding Objective	Number Below Objective	Potential Impact to Sample Results
Semivolatiles (Continued)						
Phenol-$_{d6}$	Blanks	24-113	2	0	0	Minimal
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	0	1	
Nitrobenzene-$_{d5}$	Blanks	23-120	2	0	0	
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	0	5	
2-Fluorobiphenyl	Blanks	30-115	2	0	0	None
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	0	0	
2,4,6-Tribromophenyl	Blanks	19-122	2	0	0	Minimal
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	1	0	
Terphenyl-$_{d14}$	Blanks	18-137	2	0	0	Minimal
	MS		2	0	0	
	LCS		2	0	0	
	Field		22	2	0	

MS = Matrix Spike
LCS = Laboratory Control Sample

Table D-5
Summary of Duplicate Results[a]

Analyte	Type	Precision Objective (RPD[b])	Number of Pairs Analyzed	Number Exceeding Objective	Range of RPDs Above Objective	Potential Impact to Sample Results
PCB / Pesticides						
2,4'-DDE	Analytical	50	6	1	122	No trends indicated
4,4'-DDD			6	2	56-128	
4,4'-DDE			6	4	59-153	Lower confidence in individual results due to increased measurement variability
Dieldrin			6	2	168-183	No trends indicated
HCB			6	2	55-97	
Oxychlordane			6	2	138-165	
Total BHCs			6	5	83-190	Lower confidence in individual results due to increased measurement variability
Total Chlordanes			6	2	65-106	No trends indicated
Total DDTs			6	2	114-147	
Total Dichlorobiphenyls			6	3	136-172	
Total Trichlorobiphenyls			6	4	70-146	Lower confidence in individual results due to increased measurement variability
Total Tetrachlorobiphenyls			6	2	76-126	No trends indicated
Total Pentachlorobiphenyls	Analytical	50	6	3	63-133	No trends indicated
Total Heptachlorobiphenyls			6	3	58-169	
Total Hexachlorobiphenyls			6	3	80-166	

Table D-5
(Continued)

Analyte	Type	Precision Objective (RPD[b])	Number of Pairs Analyzed	Number Exceeding Objective	Range of RPDs Above Objective	Potential Impact to Sample Results
PCB / Pesticides (Continued)						
Total Octachlorobiphenyls	Analytical	50	6	4	60-146	Lower confidence in individual results due to increased measurement variability
Total Nonachlorobiphenyls			6	1	138	No trends indicated
Total PCBs			6	3	143-162	
alpha-Chlordane			6	1	67	
gamma-Chlordane			6	1	66	
beta-BHC			6	2	84-179	
gamma-BHC			6	1	119	
cis-Nonachlor			6	1	66	
trans-Nonachlor			6	2	64-68	
Dioxins / Furans						
C_{13}-1,2,3,4,6,7,8,-HpCDD	Analytical	50	1	1	63	No trends indicated
C_{13}-1,2,3,4,7,8,9-HpCDF			1	1	77	
C_{13}-1,2,3,4,7,8,-HxCDD			1	1	59	
C_{13}-1,2,3,4,7,8,-HxCDF			1	1	74	
C_{13}-1,2,3,6,7,8,-HxCDF			1	1	73	
C_{13}-1,2,3,7,8,-PeCDF			1	1	60	
C_{13}-2,3,4,7,8,-PeCDF			1	1	63	
C_{13}-OCDD			1	1	100	

Table D-5
(Continued)

Analyte	Type	Precision Objective (RPD[b])	Number of Pairs Analyzed	Number Exceeding Objective	Range of RPDs Above Objective	Potential Impact to Sample Results
Trace Elements						
Arsenic	Analytical	25	2	1	138	No trends indicated
Chromium			2	1	29	
Lead			2	2	86-143	Lower confidence in individual results due to increased measurement variability
Thallium			2	2	86	
Lead	LCS/LCSD		2	1	29	No trends indicated
Thallium			2	1	27	

[a] Only precision estimates not meeting QC objectives are listed.
[b] Relative Percent Difference (RPD) = |difference| / mean * 100

MS = Matrix Spike
LCS/LCSD = Laboratory Control Sample/Laboratory Control Sample Duplicate

D.2.0 ANALYTICAL RESULTS

This section describes the results of chemical analyses performed for biota samples collected, analytical anomalies and associated corrective actions taken, and data qualifier flags found in the data tables.

D.2.1 Chemical Analyses

The biota samples collected for chemical analyses were prepared and analyzed in accordance with the project *Chemical Data Acquisition Plan* (CDAP, January 1993), laboratory standard operating procedures (SOPs), and the following guidance documents:

- SW-846, *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*, U.S. EPA, Office of Solid Waste and Emergency Response, November 1986, Third Edition, and

- U.S. EPA, *Methods for Chemical Analysis of Water and Wastes*, 600/4-79-020, March 1983.

GERG of College Station, Texas conducted the chemical analyses of biota samples for this project. Summary tables of these results are presented in Attachment A to this appendix. Samples were split by GERG following the freeze-drying step and then prepared and analyzed (i.e., laboratory replicate analyses). Biota sample results are reported on a dry-weight basis.

D.2.2 Analytical Anomalies and Corrective Actions Taken

Each sample collected was scoped for a suite of analyses to be performed in replicate; however, in a few instances the laboratory replicate analysis was not performed because of laboratory difficulties. At a minimum, one analysis per method was performed for each sample.

Due to the high lipid content of the samples, numerous matrix interferences were detected in the semivolatile organic chromatograms. Detection limits were raised for most of the semivolatile organic analytes because of these interferences. The high content of lipid material also caused rapid deterioration of both the injection port liner and the pre-column. Both the injection port sleeve and pre-column were replaced after the mass spectrum tuning, calibration and system performance check analyses, and eight to ten sample analyses. Because of these analytical system problems, a few sample analyses were performed more than 12 hours from the time of injection of DFTPP (i.e., mass spectrum tuning); however, no more than ten samples were analyzed within an analytical sequence.

D.2.3 Data Qualifier Flags

Data qualifier flags have been added to some analytical results to note exceptions from the QC limits or to provide additional information. A summary of the data flags used for this biota data set is presented in Table D-6.

Table D-6
Summary of Data Flags and Definitions

Flag	Definition
B	Analyte was also detected in the laboratory blank analysis.
J	Estimated value because analyte detected at concentration less than the detection limit.
N/A	Not available or not analyzed
ND	Not detected
Q	Quality control result or recovery is outside the established control limits.

D.3.0 SUMMARY OF QA/QC ACTIVITIES AND FINDINGS

This section presents a summary of analytical results for QC samples associated with the analysis of biota samples. Estimates of measurement precision and accuracy based on the analysis of these QC samples and potential limitations in the use of the data are presented by parameter. Detailed descriptions of the project QA/QC program are documented in the project *Chemical Data Acquisition Plan (CDAP)* (Radian, January 1993).

Overall, QA/QC data associated with this program indicate that measurement data are acceptable and defensible. The QA/QC data indicate that the QC mechanisms were effective in ensuring measurement data reliability within the expected limits of sampling and analytical error.

Tabular listings of all QC results are presented in Attachment B to this appendix. These tables include detailed listings of blank results (Table B1), spike results (Table B2), and duplicate results (Table B3). Tables D-2 through D-5 summarize QC results for blank analyses, spike recoveries, surrogate recoveries, and duplicate results, respectively.

D.3.1 Chlorinated Pesticides and Polychlorinated Biphenyls (PCBs)

Biota samples were prepared and analyzed according to GERG standard operating procedures (SOPs) 9016 and 9017. Freeze-dried biota samples were extracted with methylene chloride using a tissuemizer, followed by a solvent exchange to hexane. The chlorinated pesticides and PCB congeners were separated and quantified by gas chromatography (GC) using electron capture detection. A gas chromatography/mass spectrometry (GC/MS) confirmation analysis was performed for all detected concentrations greater than 50 ng/g.

D.3.1.1 Blanks

Laboratory method blanks were analyzed with each analytical batch to assess potential laboratory contamination. The method blanks were reagent sand samples processed through the entire extraction and analytical process using the same techniques and equipment as were used for the biota tissue sample analyses.

Two laboratory method blanks were prepared for pesticide and PCB analysis. However, one of the two blanks was lost during cleanup procedures and results are only reported for the remaining sample. No target analytes were detected in this method blank.

D.3.1.2 Spikes

Three types of spikes (laboratory control samples, matrix spike analyses, and surrogate spikes) were analyzed with biota tissue samples to assess pesticide and PCB method accuracy.

Recoveries of the three surrogate spikes added to each sample show acceptable extraction efficiency and measurement accuracy. Nine of 23 field sample surrogate recoveries for PCB #198 were below the project objectives. No trend or bias is indicated as the two other surrogate compounds were recovered within project objectives.

Laboratory control sample (LCS) results show acceptable method accuracy. Recoveries are within the laboratory and project objectives (40-120%), with the exception of two target analytes. Recoveries for one of two analyses for 2,4'-DDD and 4,4'-DDT were below project objectives. No trend or bias is indicated.

Two matrix spike (MS) analyses were performed. One recovery value for 4,4'-DDE was above project objectives and the other was below, indicating a potential matrix interference for this analyte. Six analytes had one of two recoveries that were not within project objectives; however, as only two data points were available for assessment, no trends are indicated. Results of these analyses show acceptable method accuracy.

D.3.1.3 Duplicates

Laboratory replicate analyses were performed to assess measurement precision for pesticide and PCB analysis. A detailed listing of duplicate analysis results is presented as Table B3 in Attachment B to this appendix.

Laboratory replicate analyses were produced by selecting certain field samples for duplicate analysis. The calculated relative percent differences (RPDs) for 56 of 144 target analytes were larger than the project precision objective of RPD ≤ 50. No trends can be identified because most target analytes had a majority of replicate RPD values within the objective.

D.3.2 Semivolatile Organics

Biota samples were prepared and analyzed according to GERG SOP 8903 and SW-846 Method 8270. Freeze-dried biota samples were extracted with methylene chloride using a tissuemizer, followed by a solvent exchange to hexane. The semivolatile organic compounds were separated and quantified by gas chromatography/mass spectrometry (GC/MS).

D.3.2.1 Blanks

Laboratory method blanks were analyzed with each analytical batch to assess potential laboratory contamination. The method blanks were reagent sand samples processed through the entire extraction and analytical process using the same techniques and equipment as were used for the biota tissue sample analyses.

Two method blank analyses were performed. No target analytes were detected in these samples.

D.3.2.2 Spikes

Three types of spikes (LCS, MS, and surrogate spikes) were analyzed with biota tissue samples to assess semivolatile organic method accuracy.

Acceptable method accuracy is indicated by the spike recoveries. All surrogate spike recoveries were within project objectives. Although some LCS and MS analytes had one of two recoveries that were not within project objectives, there was insufficient data to indicate any specific trends or biases.

D.3.2.3 Duplicates

Laboratory replicate analyses were performed to assess measurement precision for semivolatile organic analysis. No target analytes were detected in any of the analyses; therefore, no precision estimates can be calculated.

D.3.3 Polychlorinated Dioxins and Polychlorinated Furans (PCDD/PCDF)

Biota samples were prepared and analyzed according to GERG SOP 8903 and SW-846 Method 8290. Freeze-dried biota samples were extracted with methylene chloride using a tissuemizer, followed by a solvent exchange to hexane. The chlorinated dioxins and furans were separated and quantified using high resolution gas chromatography along with high resolution mass spectrometry.

D.3.3.1 Blanks

Two laboratory method blanks were analyzed with the analytical batch to assess potential laboratory contamination. The method blanks were reagent sand samples processed through the entire extraction and analytical process using the same techniques and equipment as were used for the biota tissue sample analyses.

Results of the laboratory blank analyses suggest a potential for low level furan contamination in the laboratory systems. 1,2,3,7,8,-PeCDF (27.0 pg/g), was detected in one of the method blank analyses above the detection limit. This analyte was also detected in 10 of 17 samples at similar concentrations. These concentrations may represent laboratory contamination rather than site conditions.

D.3.3.2 Spikes

Three types of spikes (LCS, MS, and surrogate spikes) were analyzed with biota tissue samples to assess method accuracy for dioxin and furan analysis.

Acceptable method accuracy is indicated by the LCS and MS recoveries. However, a few individual recoveries are slightly above project objectives (40-120%). Both of the 2,3,4,7,8-PeCDF LCS recoveries (122%) and one of the two recoveries for 2,3,7,8-TCDF (123%), 1,2,3,4,7,8,9-HpCDF (129%),

and OCDF (121%) are slightly above the accuracy objectives. Recoveries for one of two MS analyses for 2,3,7,8-TCDF (131%), OCDF (125%), and 2,3,7,8-TCDD (125%) are above the accuracy objectives.

As shown in Table D-7, low recoveries were reported in each category of analysis (i.e., blanks, spikes, and field samples) for all surrogate compounds. However, SW-846 Method 8290 is an isotope dilution method. Each target analyte concentration is calculated based on the recovery of the labeled isotope associated with that target analyte. Therefore, low recoveries are taken into account when the concentration of the detected analytes is reported. LCS and MS recoveries also suggest acceptable method accuracy. No biases or trends are indicated.

D.3.3.3 Duplicates

Laboratory replicate analyses were performed to assess measurement precision for dioxin and furan analysis. No target analytes were detected in both samples of any replicate pair analyses; therefore, no precision estimates can be calculated.

D.3.4 Metals

Biota samples were prepared according to GERG SOP ST07 and analyzed according to SW-846 Methods 7040 (antimony), 7060 (arsenic), 7131 (cadmium), 7191 (chromium), 7421 (lead), 7450 (magnesium), 7471 (mercury), 7740 (selenium), 7841 (thallium), EPA Methods 249.2 (nickel), 272.2 (silver), and GERG SOP 9202 (barium and manganese). Freeze-dried biota samples were weighed into a closed teflon reaction vessel and heated with nitric acid until digestion was complete. The metallic analytes were measured using graphite furnace atomic absorption, direct current plasma atomic emission spectroscopy, or cold vapor atomic absorption.

Table D-7
Summary of Dioxin/Furan Surrogate Recoveries

Analyte	Type	Recovery Objective (%)	Total Analyzed	Number Below Objective	Mean Recovery (%)	Range of Recoveries Below Objective (%)
C_{13}-2,3,7,8-TCDF	Blanks	40-120	2	1	41	36
	MS		2	1	44	33
	LCS		2	0	56	NA
	Field		22	6	43	8-36
C_{13}-1,2,3,7,8-PeCDF	Blanks	40-120	2	2	28	22-35
	MS		2	0	46	NA
	LCS		2	0	52	NA
	Field		22	17	33	7-39
C_{13}-2,3,4,7,8-PeCDF	Blanks	40-120	2	2	30	25-34
	MS		2	0	44	NA
	LCS		2	0	52	NA
	Field		22	17	33	7-39
C_{13}-1,2,3,4,7,8-HxCDF	Blanks	40-120	2	1	35	26
	MS		2	0	44	NA
	LCS		2	0	54	NA
	Field		22	15	37	10-39
C_{13}-1,2,3,6,7,8-HxCDF	Blanks	40-120	2	2	26	20-33
	MS		2	2	38	37-39
	LCS		2	1	40	27
	Field		22	20	28	7-38
C_{13}-1,2,3,7,8,9-HxCDF	Blanks	40-120	2	2	24	17-31
	MS		2	1	34	28
	LCS		2	1	41	38
	Field		22	20	28	6-39
C_{13}-2,3,4,6,7,8-HxCDF	Blanks	40-120	2	2	18	10-25
	MS		2	1	38	30
	LCS		2	1	47	39
	Field		22	22	24	3-38
C_{13}-1,2,3,4,6,7,8-HpCDF	Blanks	40-120	2	2	22	18-26
	MS		2	1	38	31
	LCS		2	1	43	39
	Field		22	21	26	7-39

Table D-7
(Continued)

Analyte	Type	Recovery Objective (%)	Total Analyzed	Number Below Objective	Mean Recovery (%)	Range of Recoveries Below Objective (%)
C_{13}-1,2,3,4,7,8,9-HpCDF	Blanks	40-120	2	2	14	9-20
	MS		2	1	43	35
	LCS		2	1	48	31
	Field		22	19	26	6-36
C_{13}-2,3,7,8-TCDD	Blanks	40-120	2	1	36	30
	MS		2	0	44	NA
	LCS		2	0	56	NA
	Field		22	12	37	8-39
C_{13}-1,2,3,7,8-PeCDD	Blanks	40-120	2	2	30	26-35
	MS		2	0	51	NA
	LCS		2	0	61	NA
	Field		22	10	38	7-39
C13-1,2,3,4,7,8-HxCDD	Blanks	40-120	2	1	35	30
	MS		2	0	50	NA
	LCS		2	0	62	NA
	Field		22	9	42	11-39
C_{13}-1,2,3,6,7,8-HxCDD	Blanks	40-120	2	2	28	23-32
	MS		2	0	42	NA
	LCS		2	0	47	NA
	Field		22	17	32	8-39
C_{13}-1,2,3,4,6,7,8-HpCDD	Blanks	40-120	2	2	14	2-25
	MS		2	1	44	36
	LCS		2	0	52	NA
	Field		22	19	30	7-38
C_{13}-OCDD	Blanks	40-120	2	2	5	4-6
	MS		2	2	22	17-27
	LCS		2	2	26	17-34
	Field		21	21	13	2-24

MS = Matrix Spike
LCS = Laboratory Control Sample

D.3.4.1 Blanks

Laboratory method blanks were analyzed with each batch of samples to assess potential contamination associated with the analyses conducted for metallic analytes. Three target analytes were measured in the four method blank analyses at concentrations greater than the detection limits. Silver (0.01 ppm) and chromium (0.03 ppm) were detected once and barium (0.03-0.1 ppm) was detected twice. Silver was detected at greater than 10x the blank concentration in all but two samples (9307-16/17) , chromium in all but four samples (9307-12/13/15/17), and barium in all but four samples (9307-5/10/14/15). These sample results may be biased slightly high due to laboratory contamination. However, the majority of the results for metals analysis should not be biased high.

D.3.4.2 Spikes

Three types of spikes (solid LCS, liquid LCS, and MS) were analyzed to assess method accuracy. Spike results show acceptable accuracy; however, three recoveries are above the project objectives. The recovery value (155%) for one of six LCS analyses for nickel is above the project objective (80-120%). Because the remaining five LCS recoveries are within the objectives, no trend is indicated. Both magnesium matrix spike recoveries (372-504%) are above the objectives (75-125%). The high MS recoveries are due to inappropriate spike volumes. Because magnesium MS recoveries are above, and all associated laboratory control sample recoveries are within the objective, no trends are indicated. No trends or biases are indicated by the remaining liquid or solid LCS recoveries, or by the MS recoveries.

D.3.4.3 Duplicates

Laboratory replicate and duplicate laboratory control samples analyses were performed to assess measurement precision for the metals analyses.

Laboratory replicate RPDs were within project objectives (≤25), with the exception of arsenic (138), chromium (29), lead (86,143), and thallium (86, 86). Laboratory control sample duplicate RPDs were within project objectives (≤25), with the exception of lead (29) and thallium (27). Insufficient duplicate analyses were performed to assess any trends in variability.

GERG

Biological Data

Appendix D

Attachment A - Analytical Data for Biological Samples

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
	A		C		C		D	
	A-01		C-01		C-01		D-01	
PARAMETER	9303-AA-01-01		9303-AC-01-01		9303-AC-01-02 Dup of 9303-AC-01-01		9303-AD-01-01	
SOP-9017 - Chlorinated Pesticides and PCBs (ng/g)								
2,4'-DDD	3.340726	(0.426421)	0.271402 J	(0.329231)	0.384018	(0.351246)	0.63344	(0.368025)
2,4'-DDE	ND	(0.195941)	ND	(0.151282)	ND	(0.161398)	ND	(0.169108)
2,4'-DDT	1.110897	(0.310849)	0.930259	(0.24)	0.237012 J	(0.256049)	1.178593	(0.26828)
4,4'-DDD	32.293316	(0.255055)	2.816429	(0.196923)	3.11369	(0.210091)	6.674516	(0.220127)
4,4'-DDE	7.178339	(0.50214)	2.458221	(0.387692)	2.799516	(0.413617)	2.395974	(0.433376)
4,4'-DDT	0.515453	(0.251734)	0.759881	(0.194359)	1.126126	(0.207356)	1.003376	(0.217261)
Aldrin	0.27119 J	(0.326125)	0.023062 J	(0.251795)	0.017352 J	(0.268632)	0.217584 J	(0.281465)
Dieldrin	2.144296	(0.440369)	ND	(0.34)	5.604506	(0.362736)	3.048506	(0.380064)
Endrin	1.44773	(0.324133)	ND	(0.250256)	0.988496	(0.266991)	ND	(0.279745)
HCB	0.19889 J	(0.356679)	ND	(0.275385)	0.046909 J	(0.293799)	0.038835 J	(0.307834)
Heptachlor	0.085959 J	(0.342066)	0.438195	(0.264103)	0.324915	(0.281763)	0.131142 J	(0.295223)
Heptachlor epoxide	ND	(0.38059)	ND	(0.293846)	ND J	(0.313495)	ND	(0.328471)
Mirex	ND	(0.360664)	ND	(0.278462)	ND	(0.297082)	ND	(0.311274)
Oxychlordane	0.172174 J	(0.472915)	0.54486	(0.365128)	0.328541 J	(0.389544)	0.152554 J	(0.408153)
Total BHCs	2.141926	(0.460129)	2.854796	(0.355256)	4.911425	(0.379012)	3.033914	(0.397118)
Total Chlordanes	4.836796	(0.47301)	2.92833	(0.365201)	2.61997	(0.389622)	1.717284	(0.408235)
Total DDTs	44.438731	(0.32369)	7.236192	(0.249915)	7.660362	(0.266626)	11.885899	(0.279363)
Total Decachlorobiphenyls	0.391553	(0.389889)	1.768474	(0.301026)	ND	(0.321155)	0.33394 J	(0.336497)
Total Dichlorobiphenyls	4.955979	(0.557269)	8.874968	(0.430256)	10.28828	(0.459027)	1.530916	(0.480955)
Total Heptachlorobiphenyls	15.750732	(0.237786)	10.060671	(0.18359)	11.220384	(0.195866)	10.585837	(0.205223)
Total Hexachlorobiphenyls	67.637263	(0.265683)	31.253426	(0.205128)	35.805951	(0.218845)	36.916477	(0.229299)
Total Nonachlorobiphenyls	ND	(0.392546)	0.040415 J	(0.303077)	ND	(0.323343)	0.06908 J	(0.33879)
Total Octachlorobiphenyls	2.607991	(0.588487)	0.211714 J	(0.454359)	0.234123 J	(0.484742)	0.815648	(0.507898)
Total PCBs	289.82769	(0.443785)	147.10848	(0.342637)	191.01066	(0.365549)	175.80084	(0.383012)
Total Pentachlorobiphenyls	135.62515	(0.340074)	60.658732	(0.262564)	83.399271	(0.280122)	81.026165	(0.293503)
Total Tetrachlorobiphenyls	57.632249	(0.160074)	30.012906	(0.12359)	43.254052	(0.131854)	39.693514	(0.138153)
Total Trichlorobiphenyls	5.226771	(0.346716)	4.227178	(0.267692)	6.8086	(0.285593)	4.829264	(0.299236)
Toxaphene	ND	(1.092841)	ND	(0.843761)	ND	(0.900182)	ND	(0.943185)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
	A		C		C		D	
	A-01		C-01		C-01		D-01	
PARAMETER	9303-AA-01-01		9303-AC-01-01		9303-AC-01-02 Dup of 9303-AC-01-01		9303-AD-01-01	
alpha-BHC	0.562763	(0.346716)	ND	(0.267692)	0.524242	(0.285593)	0.29975	(0.299236)
alpha-Chlordane	1.175117	(0.499483)	0.679871	(0.385641)	0.539808	(0.411429)	0.508175	(0.431083)
beta-BHC	ND	(0.902657)	ND	(0.696923)	0.751252	(0.743526)	ND	(0.779045)
cis-Nonachlor	1.008368	(0.144133)	ND	(0.111282)	0.433705	(0.118723)	0.3144	(0.124395)
delta-BHC	ND	(0.371292)	1.540471	(0.286667)	1.118018	(0.305836)	1.29655	(0.320446)
gamma-BHC	1.579163	(0.219852)	1.314325	(0.169744)	2.517913	(0.181094)	1.437615	(0.189745)
gamma-Chlordane	1.939711	(0.237786)	0.916208	(0.18359)	0.697937	(0.195866)	0.36518	(0.205223)
trans-Nonachlor	0.455467 J	(1.234096)	0.349196 J	(0.952821)	0.290137 J	(1.016535)	0.245832 J	(1.065096)
SW8270 - Semivolatile Organics (ug/kg)								
1,2,4,5-Tetrachlorobenzene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
1,2,4-Trichlorobenzene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
1,2-Dichlorobenzene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
1,3-Dichlorobenzene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
1,3-Dinitrobenzene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
1,4-Dichlorobenzene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
1,4-Naphthoquinone	ND	(167)	ND	(149)	ND	(114)	ND	(151)
1,4-Phenylenediamine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
1-Naphthylamine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2,3,4,6-Tetrachlorophenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2,4,5-Trichlorophenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2,4,6-Trichlorophenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2,4-Dichlorophenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2,4-Dimethylphenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2,4-Dinitrophenol	ND	(334)	ND	(298)	ND	(228)	ND	(302)
2,4-Dinitrotoluene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2,6-Dichlorophenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2,6-Dinitrotoluene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2-Acetylaminofluorene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2-Chloronaphthalene	ND	(167)	ND	(149)	ND	(114)	ND	(151)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID A A-01 9303-AA-01-01		C C-01 9303-AC-01-01		C C-01 9303-AC-01-02 Dup of 9303-AC-01-01		D D-01 9303-AD-01-01	
2-Chlorophenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2-Methylnaphthalene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2-Methylphenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2-Naphthylamine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2-Nitroaniline	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2-Nitrophenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
2-Picoline	ND	(167)	ND	(149)	ND	(114)	ND	(151)
3,3-Dichlorobenzidine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
3,3-Dimethoxybenzidine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
3-Methylchloroanthrene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
3-Methylphenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
3-Nitroaniline	ND	(167)	ND	(149)	ND	(114)	ND	(151)
4,6-Dinitro-2-methylphenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
4-Aminobiphenyl	ND	(167)	ND	(149)	ND	(114)	ND	(151)
4-Bromophenyl-phenylether	ND	(167)	ND	(149)	ND	(114)	ND	(151)
4-Chloro-3-methylphenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
4-Chloroaniline	ND	(167)	ND	(149)	ND	(114)	ND	(151)
4-Chlorophenyl-phenylether	ND	(167)	ND	(149)	ND	(114)	ND	(151)
4-Methylphenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
4-Nitroaniline	ND	(167)	ND	(149)	ND	(114)	ND	(151)
4-Nitrophenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
4-Nitroquinoline-1-oxide	ND	(167)	ND	(149)	ND	(114)	ND	(151)
5-Nitro-o-toluidine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
7,12-Dimethylbenz(a)anthracene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Acenaphthene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Acenaphthylene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Acetophenone	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Aniline	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Anthracene	ND	(167)	ND	(149)	ND	(114)	ND	(151)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID A A-01 9303-AA-01-01			C C-01 9303-AC-01-01			C C-01 9303-AC-01-02 Dup of 9303-AC-01-01			D D-01 9303-AD-01-01	
Aramite (peak 1)	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Aramite (peak 2)	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Benzo(a)anthracene	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Benzo(a)pyrene	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Benzo(b)fluoranthene	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Benzo(g,h,i)perylene	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Benzo(k)fluoranthene	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Benzyl alcohol	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Butylbenzylphthalate	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Chlorobenzilate	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Chrysene	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Di-n-butylphthalate	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Di-n-octyphthalate	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Diallate (peak 1)	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Diallate (peak 2)	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Dibenz(a,h)anthracene	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Dibenzofuran	ND		(167)	79.1	J	(149)	64.8	J	(114)	ND	(151)
Diethylphthalate	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Dimethylphenethyamine	ND		(2007)	ND		(1786)	ND		(1370)	ND	(1813)
Dimethylphthalate	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Diphenylamine	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Ethylmethanesulfonate	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Fluoranthene	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Fluorene	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Hexachlorobenzene	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Hexachlorobutadiene	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Hexachlorocyclopentadiene	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Hexachloroethane	ND		(167)	ND		(149)	ND		(114)	ND	(151)
Hexachlorophene	ND		(33946)	ND		(30208)	ND		(23174)	ND	(30665)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID A A-01 9303-AA-01-01		C C-01 9303-AC-01-01		C C-01 9303-AC-01-02 Dup of 9303-AC-01-01		D D-01 9303-AD-01-01	
Hexachloropropene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Indeno(1,2,3-cd)pyrene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Isophorone	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Isosafrole	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Methapyrilene	ND	(836)	ND	(744)	ND	(571)	ND	(755)
Methylmethanesulfonate	ND	(836)	ND	(744)	ND	(571)	ND	(755)
Naphthalene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Nitrobenzene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Pentachlorobenzene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Pentachloroethane	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Pentachloronitrobenzene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Pentachlorophenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Phenactin	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Phenanthrene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Phenol	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Pronamide	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Pyrene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Pyridine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
Safrole	ND	(167)	ND	(149)	ND	(114)	ND	(151)
bis(2-Chloroethoxy)methane	ND	(167)	ND	(149)	ND	(114)	ND	(151)
bis(2-Chloroethyl)ether	ND	(167)	ND	(149)	ND	(114)	ND	(151)
bis(2-Chloroisopropyl)ether	ND	(167)	ND	(149)	ND	(114)	ND	(151)
bis(2-Ethylhexyl)phthalate	ND	(167)	14514.9	(149)	6666.6	(114)	2018.6	(151)
n-Nitroso-di-n-butylamine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
n-Nitroso-di-n-propylamine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
n-Nitrosodiethylamine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
n-Nitrosodimethylamine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
n-Nitrosodiphenylamine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
n-Nitrosomethylethylamine	ND	(167)	ND	(149)	ND	(114)	ND	(151)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
	A		C		C		D	
	A-01		C-01		C-01		D-01	
PARAMETER	9303-AA-01-01		9303-AC-01-01		9303-AC-01-02 Dup of 9303-AC-01-01		9303-AD-01-01	
n-Nitrosomorpholine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
n-Nitrosopiperidine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
n-Nitrosopyrrolidine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
o-Toluidine	ND	(167)	ND	(149)	ND	(114)	ND	(151)
p-Dimethylaminoazobenzene	ND	(167)	ND	(149)	ND	(114)	ND	(151)
SW8290 - Dioxins and Furans (pg/g)								
1,2,3,4,6,7,8-HpCDD	ND	(0.338376)	ND	(1.027)	ND	(0.317)	ND	(0.591)
1,2,3,4,6,7,8-HpCDF	ND	(0.616605)	ND	(2.571)	ND	(6.744)	ND	(1.855)
1,2,3,4,7,8,9-HpCDF	ND	(0.784502)	ND	(3.232)	ND	(9.255)	ND	(1.678)
1,2,3,4,7,8-HxCDD	ND	(0.263838)	ND	(4.135)	ND	(2.113)	ND	(0.672)
1,2,3,4,7,8-HxCDF	ND	(0.347601)	ND	(1.475)	15.16 J	(17.656)	ND	(2.858)
1,2,3,6;7,8-HxCDD	ND	(0.276015)	ND	(1.614)	ND	(4.447)	ND	(1.217)
1,2,3,6,7,8-HxCDF	ND	(0.355351)	ND	(1.393)	ND	(12.26)	ND	(2.468)
1,2,3,7,8,9-HxCDD	ND	(0.270849)	ND	(1.585)	ND	(1.6)	ND	(1.194)
1,2,3,7,8,9-HxCDF	ND	(0.315498)	ND	(1.087)	ND	(0.489)	ND	(0.34)
1,2,3,7,8-PeCDD	ND	(0.580812)	ND	(2.915)	ND	(7.822)	ND	(0.94)
1,2,3,7,8-PeCDF	ND	(0.431734)	ND	(1.893)	ND	(14.735)	ND	(0.977)
2,3,4,6,7,8-HxCDF	ND	(0.299631)	ND	(3.222)	ND	(2.785)	ND	(0.902)
2,3,4,7,8-PeCDF	ND	(0.489668)	ND	(1.216)	ND	(3.036)	ND	(0.626)
2,3,7,8-TCDD	ND	(0.762731)	ND	(1.512)	1.28 J	(1.859)	ND	(0.366)
2,3,7,8-TCDF	4.22	(0.32583)	ND	(1.963)	ND	(1.922)	ND	(1.14)
OCDD	4.33	(0.865683)	9.91	(1.928)	5.98	(2.741)	4.92	(1.036)
OCDF	ND	(0.743911)	2.74	(2.06)	ND	(0.813)	ND	(0.945)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID											
	LOCATION ID											
	SAMPLE ID											
	DT			E			E			F		
	DT-01			E-01			E-01			F-01		
PARAMETER	9303-ADT-01-01			9303-AE-01-01			9303-AE-01-02 Dup of 9303-AE-01-01			9303-AF-01-01		
SOP-9017 - Chlorinated Pesticides and PCBs (ng/g)												
2,4'-DDD	1.153374		(0.791507)	1.919021		(0.592615)	1.940451		(0.614681)	37.98496		(0.351246)
2,4'-DDE	ND		(0.363699)	ND		(0.272308)	ND		(0.282447)	4.996698		(0.161398)
2,4'-DDT	ND		(0.576986)	2.914243		(0.432)	1.99152		(0.448085)	1.24333		(0.256049)
4,4'-DDD	16.303886		(0.473425)	29.350557		(0.354462)	25.900227		(0.36766)	329.15866	C	(0.210091)
4,4'-DDE	2.565035		(0.932055)	4.965366		(0.697846)	4.547487		(0.72383)	42.746298		(0.413617)
4,4'-DDT	ND		(0.46726)	0.934255		(0.349846)	0.829545		(0.362872)	3.747311		(0.207356)
Aldrin	0.641464		(0.605342)	ND		(0.453231)	0.539111		(0.470106)	0.289242		(0.268632)
Dieldrin	0.999535		(0.817397)	2.268351		(0.612)	1.632348		(0.634787)	1.583543		(0.362736)
Endrin	ND		(0.601644)	1.467973		(0.450462)	ND		(0.467234)	1.59373		(0.266991)
HCB	ND		(0.662055)	0.080605	J	(0.495692)	0.05064	J	(0.514149)	0.019743	J	(0.293799)
Heptachlor	0.01708	J	(0.634932)	0.092656	J	(0.475385)	0.299094	J	(0.493085)	0.101902	J	(0.281763)
Heptachlor epoxide	ND		(0.706438)	ND		(0.528923)	ND		(0.548617)	0.045089	J	(0.313495)
Mirex	ND		(0.669452)	ND		(0.501231)	ND		(0.519894)	0.131932	J	(0.297082)
Oxychlordane	0.411842	J	(0.877808)	0.21497	J	(0.657231)	0.22941	J	(0.681702)	0.686783		(0.389544)
Total BHCs	0.698875	J	(0.854075)	1.701133		(0.639462)	2.144751		(0.663271)	1.160114		(0.379012)
Total Chlordanes	6.867621		(0.877984)	2.95403		(0.657363)	3.148133		(0.681839)	44.38276		(0.389622)
Total DDTs	20.022296		(0.600822)	40.083443		(0.449846)	35.209229		(0.466596)	419.87726		(0.266626)
Total Decachlorobiphenyls	ND		(0.723699)	ND		(0.541846)	ND		(0.562021)	0.01139	J	(0.321155)
Total Dichlorobiphenyls	19.80811		(1.034384)	13.258124		(0.774462)	8.86405		(0.803298)	5.49628		(0.459027)
Total Heptachlorobiphenyls	1.638956		(0.44137)	15.783734		(0.330462)	11.448388		(0.342766)	5.044701		(0.195866)
Total Hexachlorobiphenyls	7.813313		(0.493151)	47.321439		(0.369231)	40.695581		(0.382979)	15.63914		(0.218845)
Total Nonachlorobiphenyls	ND		(0.72863)	ND		(0.545538)	ND		(0.565851)	ND		(0.323343)
Total Octachlorobiphenyls	0.120101	J	(1.092329)	1.257735		(0.817846)	ND		(0.848298)	0.016783	J	(0.484742)
Total PCBs	59.230273		(0.823738)	198.75213		(0.616747)	170.02043		(0.639711)	115.52878		(0.365549)
Total Pentachlorobiphenyls	10.349495		(0.631233)	83.95947		(0.472615)	72.986037		(0.490213)	44.957918		(0.280122)
Total Tetrachlorobiphenyls	8.077663		(0.297123)	27.595998		(0.222462)	26.895394		(0.230745)	33.340104		(0.131654)
Total Trichlorobiphenyls	11.422635		(0.643562)	9.575636		(0.481846)	9.130987		(0.499787)	11.022473		(0.285593)
Toxaphene	ND		(2.028493)	ND		(1.518769)	ND		(1.575319)	ND		(0.900182)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID DT DT-01 9303-ADT-01-01			E E-01 9303-AE-01-01			E E-01 9303-AE-01-02 Dup of 9303-AE-01-01			F F-01 9303-AF-01-01		
alpha-BHC	ND		(0.643562)	ND		(0.481846)	ND		(0.499787)	0.175183	J	(0.285593)
alpha-Chlordane	1.85318		(0.927123)	1.046527		(0.694154)	1.058371		(0.72)	19.133919		(0.411429)
beta-BHC	ND		(1.675479)	ND		(1.254462)	ND		(1.30117)	ND		(0.743526)
cis-Nonachlor	0.84004		(0.267534)	0.40117		(0.200308)	0.443754		(0.207766)	1.877482		(0.118723)
delta-BHC	0.102725	J	(0.689178)	0.223661	J	(0.516)	0.984769		(0.535213)	ND		(0.305836)
gamma-BHC	0.596149		(0.408082)	1.477472		(0.305538)	1.159983		(0.316915)	0.984931		(0.181094)
gamma-Chlordane	2.455832		(0.44137)	0.735829		(0.330462)	0.653727		(0.342766)	15.696751		(0.195866)
trans-Nonachlor	1.289646	J	(2.290685)	0.462879	J	(1.715077)	0.463776	J	(1.778936)	6.840833		(1.016535)
SW8270 - Semivolatile Organics (ug/kg)												
1,2,4,5-Tetrachlorobenzene	ND		(467)	ND		(260)	ND		(221)	ND		(158)
1,2,4-Trichlorobenzene	ND		(467)	ND		(260)	ND		(221)	ND		(158)
1,2-Dichlorobenzene	ND		(467)	ND		(260)	ND		(221)	ND		(158)
1,3-Dichlorobenzene	ND		(467)	ND		(260)	ND		(221)	ND		(158)
1,3-Dinitrobenzene	ND		(467)	ND		(260)	ND		(221)	ND		(158)
1,4-Dichlorobenzene	ND		(467)	ND		(260)	ND		(221)	ND		(158)
1,4-Naphthoquinone	ND		(467)	ND		(260)	ND		(221)	ND		(158)
1,4-Phenylenediamine	ND		(467)	ND		(260)	ND		(221)	ND		(158)
1-Naphthylamine	ND		(467)	ND		(260)	ND		(221)	ND		(158)
2,3,4,6-Tetrachlorophenol	ND		(467)	ND		(260)	ND		(221)	ND		(158)
2,4,5-Trichlorophenol	ND		(467)	ND		(260)	ND		(221)	ND		(158)
2,4,6-Trichlorophenol	ND		(467)	ND		(260)	ND		(221)	ND		(158)
2,4-Dichlorophenol	ND		(467)	ND		(260)	ND		(221)	ND		(158)
2,4-Dimethylphenol	ND		(467)	ND		(260)	ND		(221)	ND		(158)
2,4-Dinitrophenol	ND		(935)	ND		(521)	ND		(442)	ND		(316)
2,4-Dinitrotoluene	ND		(467)	ND		(260)	ND		(221)	ND		(158)
2,6-Dichlorophenol	ND		(467)	ND		(260)	ND		(221)	ND		(158)
2,6-Dinitrotoluene	ND		(467)	ND		(260)	ND		(221)	ND		(158)
2-Acetylaminofluorene	ND		(467)	ND		(260)	ND		(221)	ND		(158)
2-Chloronaphthalene	ND		(467)	ND		(260)	ND		(221)	ND		(158)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
	DT		E		E		F	
	DT-01		E-01		E-01		F-01	
PARAMETER	9303-ADT-01-01		9303-AE-01-01		9303-AE-01-02 Dup of 9303-AE-01-01		9303-AF-01-01	
2-Chlorophenol	ND	(467)	ND	(260)	ND	(221)	ND	(158)
2-Methylnaphthalene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
2-Methylphenol	ND	(467)	ND	(260)	ND	(221)	ND	(158)
2-Naphthylamine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
2-Nitroaniline	ND	(467)	ND	(260)	ND	(221)	ND	(158)
2-Nitrophenol	ND	(467)	ND	(260)	ND	(221)	ND	(158)
2-Picoline	ND	(467)	ND	(260)	ND	(221)	ND	(158)
3,3-Dichlorobenzidine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
3,3-Dimethoxybenzidine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
3-Methylchloroanthrene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
3-Methylphenol	ND	(467)	ND	(260)	ND	(221)	ND	(158)
3-Nitroaniline	ND	(467)	ND	(260)	ND	(221)	ND	(158)
4,6-Dinitro-2-methylphenol	ND	(467)	ND	(260)	ND	(221)	ND	(158)
4-Aminobiphenyl	ND	(467)	ND	(260)	ND	(221)	ND	(158)
4-Bromophenyl-phenylether	ND	(467)	ND	(260)	ND	(221)	ND	(158)
4-Chloro-3-methylphenol	ND	(467)	ND	(260)	ND	(221)	ND	(158)
4-Chloroaniline	ND	(467)	ND	(260)	ND	(221)	ND	(158)
4-Chlorophenyl-phenylether	ND	(467)	ND	(260)	ND	(221)	ND	(158)
4-Methylphenol	ND	(467)	ND	(260)	ND	(221)	ND	(158)
4-Nitroaniline	ND	(467)	ND	(260)	ND	(221)	ND	(158)
4-Nitrophenol	ND	(467)	ND	(260)	ND	(221)	ND	(158)
4-Nitroquinoline-1-oxide	ND	(467)	ND	(260)	ND	(221)	ND	(158)
5-Nitro-o-toluidine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
7,12-Dimethylbenz(a)anthracene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Acenaphthene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Acenaphthylene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Acetophenone	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Aniline	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Anthracene	ND	(467)	ND	(260)	ND	(221)	ND	(158)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID DT DT-D1 9303-ADT-01-01		E E-01 9303-AE-01-01		E E-01 9303-AE-01-02 Dup of 9303-AE-01-01		F F-01 9303-AF-01-01	
Aramite (peak 1)	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Aramite (peak 2)	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Benzo(a)anthracene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Benzo(a)pyrene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Benzo(b)fluoranthene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Benzo(g,h,i)perylene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Benzo(k)fluoranthene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Benzyl alcohol	ND	(467)	847.8	(260)	677.2	(221)	ND	(158)
Butylbenzylphthalate	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Chlorobenzilate	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Chrysene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Di-n-butylphthalate	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Di-n-octyphthalate	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Diallate (peak 1)	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Diallate (peak 2)	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Dibenz(a,h)anthracene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Dibenzofuran	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Diethylphthalate	859	(467)	ND	(260)	ND	(221)	ND	(158)
Dimethylphenethyamine	ND	(5607)	ND	(3125)	ND	(2655)	ND	(1899)
Dimethylphthalate	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Diphenylamine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Ethylmethanesulfonate	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Fluoranthene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Fluorene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Hexachlorobenzene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Hexachlorobutadiene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Hexachlorocyclopentadiene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Hexachloroethane	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Hexachlorophene	ND	(94860)	ND	(52865)	ND	(44912)	ND	(32120)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
	DT		E		E		F	
	DT-01		E-01		E-01		F-01	
PARAMETER	9303-ADT-01-01		9303-AE-01-01		9303-AE-01-02 Dup of 9303-AE-01-01		9303-AF-01-01	
Hexachloropropene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Indeno(1,2,3-cd)pyrene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Isophorone	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Isosafrole	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Methapyrilene	ND	(2336)	ND	(1302)	ND	(1106)	ND	(791)
Methylmethanesulfonate	ND	(2336)	ND	(1302)	ND	(1106)	ND	(791)
Naphthalene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Nitrobenzene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Pentachlorobenzene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Pentachloroethane	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Pentachloronitrobenzene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Pentachlorophenol	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Phenactin	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Phenanthrene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Phenol	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Pronamide	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Pyrene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Pyridine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
Safrole	ND	(467)	ND	(260)	ND	(221)	ND	(158)
bis(2-Chloroethoxy)methane	ND	(467)	ND	(260)	ND	(221)	ND	(158)
bis(2-Chloroethyl)ether	ND	(467)	ND	(260)	ND	(221)	ND	(158)
bis(2-Chloroisopropyl)ether	ND	(467)	ND	(260)	ND	(221)	ND	(158)
bis(2-Ethylhexyl)phthalate	1679.2	(467)	1644.9	(260)	1752.1	(221)	ND	(158)
n-Nitroso-di-n-butylamine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
n-Nitroso-di-n-propylamine	ND	(467)	7071	(260)	8405.2	(221)	ND	(158)
n-Nitrosodiethylamine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
n-Nitrosodimethylamine	ND	(467)	96 J	(260)	149.1 J	(221)	ND	(158)
n-Nitrosodiphenylamine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
n-Nitrosomethylethylamine	ND	(467)	ND	(260)	ND	(221)	ND	(158)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID DT DT-01 9303-ADT-01-01		E E-01 9303-AE-01-01		E E-01 9303-AE-01-02 Dup of 9303-AE-01-01		F F-01 9303-AF-01-01	
n-Nitrosomorpholine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
n-Nitrosopiperidine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
n-Nitrosopyrrolidine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
o-Toluidine	ND	(467)	ND	(260)	ND	(221)	ND	(158)
p-Dimethylaminoazobenzene	ND	(467)	ND	(260)	ND	(221)	ND	(158)
SW8290 - Dioxins and Furans (pg/g)								
1,2,3,4,6,7,8-HpCDD	15.9	(0.61371)	ND	(3.523)	6.81	(0.546277)	ND	(0.354)
1,2,3,4,6,7,8-HpCDF	ND	(1.409677)	ND	(2.427)	ND	(1.367553)	ND	(0.666)
1,2,3,4,7,8,9-HpCDF	ND	(2.141935)	ND	(3.382)	ND	(1.719149)	ND	(0.92)
1,2,3,4,7,8-HxCDD	ND	(1.942742)	ND	(2.909)	ND	(2.199468)	ND	(0.524)
1,2,3,4,7,8-HxCDF	ND	(0.349194)	ND	(2.217)	ND	(0.784574)	ND	(0.739)
1,2,3,6,7,8-HxCDD	ND	(1.887903)	ND	(2.958)	ND	(0.858511)	ND	(0.531)
1,2,3,6,7,8-HxCDF	0.63	(0.335484)	ND	(2.114)	ND	(0.740957)	ND	(0.339)
1,2,3,7,8,9-HxCDD	ND	(1.16371)	ND	(2.903)	ND	(0.843085)	ND	(0.522)
1,2,3,7,8,9-HxCDF	1.35	(0.35)	ND	(2.251)	ND	(0.578191)	ND	(0.366)
1,2,3,7,8-PeCDD	ND	(1.523387)	ND	(2.954)	ND	(1.550532)	ND	(0.684)
1,2,3,7,8-PeCDF	ND	(0.725)	ND	(1.244)	ND	(1.006915)	ND	(0.771)
2,3,4,6,7,8-HxCDF	ND	(1.699194)	ND	(2.702)	ND	(1.71383)	ND	(0.999)
2,3,4,7,8-PeCDF	ND	(0.624194)	ND	(1.308)	ND	(0.646809)	ND	(0.844)
2,3,7,8-TCDD	ND	(3.496774)	ND	(3.418)	ND	(0.804255)	ND	(0.462)
2,3,7,8-TCDF	ND	(0.734677)	4.92	(1.243)	ND	(1.044149)	ND	(0.701)
OCDD	103.23	(3.332258)	2.79 J	(4.629)	101.44	(2.467553)	2.21	(0.978)
OCDF	7.56	(3.541935)	ND	(5.316)	2.18 J	(2.286702)	0.6 J	(1.564)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID											
	LOCATION ID											
	SAMPLE ID											
PARAMETER	G G-01 9303-AG-01-01			LH LH-01 9303-ALH-01-01			LH LH-02 9303-ALH-02-01			LH LH-03 9303-ALH-03-01		
SOP-9017 - Chlorinated Pesticides and PCBs (ng/g)												
2,4'-DDD	0.28125	J	(0.330171)	0.12465	J	(0.645587)	0.092012	J	(0.563707)	0.059696	J	(0.92448)
2,4'-DDE	ND		(0.151714)	ND		(0.296648)	ND		(0.259024)	ND		(0.4248)
2,4'-DDT	ND		(0.240686)	ND		(0.470615)	ND		(0.410927)	ND		(0.67392)
4,4'-DDD	4.87283		(0.197486)	0.297548	J	(0.386145)	0.591081		(0.337171)	0.691414		(0.55296)
4,4'-DDE	0.913892		(0.3888)	ND		(0.760223)	0.592613	J	(0.663805)	ND		(1.08864)
4,4'-DDT	0.578495		(0.194914)	0.164463	J	(0.381117)	ND		(0.33278)	ND		(0.54576)
Aldrin	0.007706	J	(0.252514)	0.085958	J	(0.493743)	0.180245	J	(0.431122)	ND		(0.70704)
Dieldrin	0.713578		(0.340971)	ND		(0.666704)	0.367975	J	(0.582146)	ND		(0.95472)
Endrin	0.309924		(0.250971)	ND		(0.490726)	ND		(0.428488)	ND		(0.70272)
HCB	ND		(0.276171)	0.026141	J	(0.54)	ND		(0.471512)	0.16799	J	(0.77328)
Heptachlor	0.186664	J	(0.264857)	0.188821	J	(0.517877)	0.558325		(0.452195)	0.254892	J	(0.7416)
Heptachlor epoxide	ND		(0.294686)	ND		(0.576201)	ND		(0.503122)	ND		(0.82512)
Mirex	ND		(0.279257)	ND		(0.546034)	ND		(0.47678)	ND		(0.78192)
Oxychlordane	0.12928	J	(0.366171)	ND		(0.715978)	0.226256	J	(0.625171)	ND		(1.02528)
Total BHCs	2.573256		(0.356271)	0.85087		(0.69662)	2.041676		(0.608268)	0.981855	J	(0.99756)
Total Chlordanes	0.923098		(0.366245)	0.255684	J	(0.716121)	1.797623		(0.625296)	0.568132	J	(1.025486)
Total DDTs	6.646466		(0.250629)	0.58666		(0.490056)	1.275705		(0.427902)	0.75111		(0.70176)
Total Decachlorobiphenyls	ND		(0.301886)	ND		(0.590279)	ND		(0.515415)	ND		(0.84528)
Total Dichlorobiphenyls	4.13976		(0.431486)	2.5867		(0.843687)	17.693739		(0.736683)	3.968221		(1.20816)
Total Heptachlorobiphenyls	2.940959		(0.184114)	1.444199		(0.36)	0.462999		(0.314341)	ND		(0.51552)
Total Hexachlorobiphenyls	7.921158		(0.205714)	1.721742		(0.402235)	1.379709		(0.35122)	1.981036		(0.576)
Total Nonachlorobiphenyls	ND		(0.303943)	ND		(0.594302)	ND		(0.518927)	ND		(0.85104)
Total Octachlorobiphenyls	ND		(0.455657)	ND		(0.89095)	0.613965	J	(0.777951)	ND		(1.27584)
Total PCBs	43.827891		(0.343616)	9.160166		(0.671875)	36.998881		(0.586662)	10.140579		(0.962126)
Total Pentachlorobiphenyls	17.088611		(0.263314)	0.717062		(0.51486)	2.15017		(0.449561)	0.899405		(0.73728)
Total Tetrachlorobiphenyls	8.226856		(0.123943)	1.523489		(0.242346)	5.145519		(0.21161)	0.626565		(0.34704)
Total Trichlorobiphenyls	3.510547		(0.268457)	1.166973		(0.524916)	9.552779		(0.458341)	2.665353		(0.75168)
Toxaphene	ND		(0.846171)	ND		(1.654525)	ND		(1.444683)	ND		(2.36928)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID											
	LOCATION ID											
	SAMPLE ID											
	G			LH			LH			LH		
	G-01			LH-01			LH-02			LH-03		
PARAMETER	9303-AG-01-01			9303-ALH-01-01			9303-ALH-02-01			9303-ALH-03-01		
alpha-BHC	0.191458	J	(0.268457)	ND		(0.524916)	ND		(0.458341)	ND		(0.75168)
alpha-Chlordane	0.352427	J	(0.386743)	0.066862	J	(0.756201)	0.132596	J	(0.660293)	0.122579	J	(1.08288)
beta-BHC	ND		(0.698914)	ND		(1.366592)	ND		(1.193268)	ND		(1.95696)
cis-Nonachlor	ND		(0.1116)	ND		(0.218212)	0.145358	J	(0.190537)	ND		(0.31248)
delta-BHC	0.922402		(0.287486)	ND		(0.562123)	ND		(0.490829)	ND		(0.80496)
gamma-BHC	1.459396		(0.170229)	0.85087		(0.332849)	2.041676		(0.290634)	0.981855		(0.47664)
gamma-Chlordane	0.035487	J	(0.184114)	ND		(0.36)	0.407969		(0.314341)	0.033334	J	(0.51552)
trans-Nonachlor	0.219239	J	(0.955543)	ND		(1.86838)	0.327119	J	(1.631415)	0.157328	J	(2.67552)
SW8270 - Semivolatile Organics (ug/kg)												
1,2,4,5-Tetrachlorobenzene	ND		(157)	ND		(227)	ND		(265)	ND		(340)
1,2,4-Trichlorobenzene	ND		(157)	ND		(227)	ND		(265)	ND		(340)
1,2-Dichlorobenzene	ND		(157)	ND		(227)	ND		(265)	ND		(340)
1,3-Dichlorobenzene	ND		(157)	ND		(227)	ND		(265)	ND		(340)
1,3-Dinitrobenzene	ND		(157)	ND		(227)	ND		(265)	ND		(340)
1,4-Dichlorobenzene	ND		(157)	ND		(227)	ND		(265)	ND		(340)
1,4-Naphthoquinone	ND		(157)	ND		(227)	ND		(265)	ND		(340)
1,4-Phenylenediamine	ND		(157)	ND		(227)	ND		(265)	ND		(340)
1-Naphthylamine	ND		(157)	ND		(227)	ND		(265)	ND		(340)
2,3,4,6-Tetrachlorophenol	ND		(157)	ND		(227)	ND		(265)	ND		(340)
2,4,5-Trichlorophenol	ND		(157)	ND		(227)	ND		(265)	ND		(340)
2,4,6-Trichlorophenol	ND		(157)	ND		(227)	ND		(265)	ND		(340)
2,4-Dichlorophenol	ND		(157)	ND		(227)	ND		(265)	ND		(340)
2,4-Dimethylphenol	ND		(157)	ND		(227)	ND		(265)	ND		(340)
2,4-Dinitrophenol	ND		(314)	ND		(455)	ND		(265)	ND		(680)
2,4-Dinitrotoluene	ND		(157)	ND		(227)	ND		(265)	ND		(340)
2,6-Dichlorophenol	ND		(157)	ND		(227)	ND		(265)	ND		(340)
2,6-Dinitrotoluene	ND		(157)	ND		(227)	ND		(265)	ND		(340)
2-Acetylaminofluorene	ND		(157)	ND		(227)	ND		(265)	ND		(340)
2-Chloronaphthalene	ND		(157)	ND		(227)	ND		(265)	ND		(340)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
	G		LH		LH		LH	
	G-01		LH-01		LH-02		LH-03	
PARAMETER	9303-AG-01-01		9303-ALH-01-01		9303-ALH-02-01		9303-ALH-03-01	
2-Chlorophenol	ND	(157)	ND	(227)	ND	(265)	ND	(340)
2-Methylnaphthalene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
2-Methylphenol	ND	(157)	ND	(227)	ND	(265)	ND	(340)
2-Naphthylamine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
2-Nitroaniline	ND	(157)	ND	(227)	ND	(265)	ND	(340)
2-Nitrophenol	ND	(157)	ND	(227)	ND	(265)	ND	(340)
2-Picoline	ND	(157)	ND	(227)	ND	(265)	ND	(340)
3,3-Dichlorobenzidine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
3,3-Dimethoxybenzidine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
3-Methylchloroanthrene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
3-Methylphenol	ND	(157)	ND	(227)	ND	(265)	ND	(340)
3-Nitroaniline	ND	(157)	ND	(227)	ND	(265)	ND	(340)
4,6-Dinitro-2-methylphenol	ND	(157)	ND	(227)	ND	(265)	ND	(340)
4-Aminobiphenyl	ND	(157)	ND	(227)	ND	(265)	ND	(340)
4-Bromophenyl-phenylether	ND	(157)	ND	(227)	ND	(265)	ND	(340)
4-Chloro-3-methylphenol	ND	(157)	ND	(227)	ND	(265)	ND	(340)
4-Chloroaniline	ND	(157)	ND	(227)	ND	(265)	ND	(340)
4-Chlorophenyl-phenylether	ND	(157)	ND	(227)	ND	(265)	ND	(340)
4-Methylphenol	ND	(157)	ND	(227)	ND	(265)	ND	(340)
4-Nitroaniline	ND	(157)	ND	(227)	ND	(265)	ND	(340)
4-Nitrophenol	ND	(157)	ND	(227)	ND	(265)	ND	(340)
4-Nitroquinoline-1-oxide	ND	(157)	ND	(227)	ND	(265)	ND	(340)
5-Nitro-o-toluidine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
7,12-Dimethylbenz(a)anthracene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Acenaphthene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Acenaphthylene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Acetophenone	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Aniline	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Anthracene	ND	(157)	ND	(227)	ND	(265)	ND	(340)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
	G		LH		LH		LH	
	G-01		LH-01		LH-02		LH-03	
PARAMETER	9303-AG-01-01		9303-ALH-01-01		9303-ALH-02-01		9303-ALH-03-01	
Aramite (peak 1)	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Aramite (peak 2)	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Benzo(a)anthracene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Benzo(a)pyrene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Benzo(b)fluoranthene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Benzo(g,h,i)perylene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Benzo(k)fluoranthene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Benzyl alcohol	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Butylbenzylphthalate	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Chlorobenzilate	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Chrysene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Di-n-butylphthalate	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Di-n-octyphthalate	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Diallate (peak 1)	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Diallate (peak 2)	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Dibenz(a,h)anthracene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Dibenzofuran	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Diethylphthalate	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Dimethylphenethyamine	ND	(1887)	ND	(2727)	ND	(3175)	ND	(4082)
Dimethylphthalate	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Diphenylamine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Ethylmethanesulfonate	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Fluoranthene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Fluorene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Hexachlorobenzene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Hexachlorobutadiene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Hexachlorocyclopentadiene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Hexachloroethane	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Hexachlorophene	ND	(31918)	ND	(46136)	ND	(53704)	ND	(69048)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
PARAMETER	G G-01 9303-AG-01-01		LH LH-01 9303-ALH-01-01		LH LH-02 9303-ALH-02-01		LH LH-03 9303-ALH-03-01	
Hexachloropropene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Indeno(1,2,3-cd)pyrene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Isophorone	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Isosafrole	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Methapyrilene	ND	(786)	ND	(1136)	ND	(1323)	ND	(1701)
Methylmethanesulfonate	ND	(786)	ND	(1136)	ND	(1323)	ND	(1701)
Naphthalene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Nitrobenzene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Pentachlorobenzene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Pentachloroethane	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Pentachloronitrobenzene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Pentachlorophenol	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Phenactin	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Phenanthrene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Phenol	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Pronamide	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Pyrene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
Pyridine	ND	(157)	ND	(227)	1370.7	(265)	ND	(340)
Safrole	ND	(157)	ND	(227)	ND	(265)	ND	(340)
bis(2-Chloroethoxy)methane	ND	(157)	ND	(227)	ND	(265)	ND	(340)
bis(2-Chloroethyl)ether	ND	(157)	ND	(227)	ND	(265)	ND	(340)
bis(2-Chloroisopropyl)ether	ND	(157)	ND	(227)	ND	(265)	ND	(340)
bis(2-Ethylhexyl)phthalate	ND	(157)	ND	(227)	ND	(265)	2317.1	(340)
n-Nitroso-di-n-butylamine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
n-Nitroso-di-n-propylamine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
n-Nitrosodiethylamine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
n-Nitrosodimethylamine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
n-Nitrosodiphenylamine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
n-Nitrosomethylethylamine	ND	(157)	ND	(227)	ND	(265)	ND	(340)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9303-AG-01-01		LH LH-01 9303-ALH-01-01		LH LH-02 9303-ALH-02-01		LH LH-03 9303-ALH-03-01	
n-Nitrosomorpholine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
n-Nitrosopiperidine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
n-Nitrosopyrrolidine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
o-Toluidine	ND	(157)	ND	(227)	ND	(265)	ND	(340)
p-Dimethylaminoazobenzene	ND	(157)	ND	(227)	ND	(265)	ND	(340)
SW8290 - Dioxins and Furans (pg/g)								
1,2,3,4,6,7,8-HpCDD	1.73	(0.112)	ND	(0.433)	ND	(1.628)	ND	(6.735)
1,2,3,4,6,7,8-HpCDF	ND	(0.206)	3.06	(0.636)	ND	(1.32)	ND	(4.305)
1,2,3,4,7,8,9-HpCDF	ND	(0.255)	ND	(1.132)	ND	(1.721)	ND	(9.733)
1,2,3,4,7,8-HxCDD	0.7	(0.12)	ND	(0.17)	ND	(0.957)	ND	(4.47)
1,2,3,4,7,8-HxCDF	0.96	(0.119)	ND	(0.23)	ND	(1.024)	ND	(4.451)
1,2,3,6,7,8-HxCDD	ND	(0.122)	ND	(0.165)	ND	(0.411)	ND	(3.659)
1,2,3,6,7,8-HxCDF	ND	(0.113)	ND	(0.215)	ND	(0.724)	ND	(4.23)
1,2,3,7,8,9-HxCDD	ND	(0.12)	ND	(0.162)	ND	(0.403)	ND	(3.591)
1,2,3,7,8,9-HxCDF	1.26	(0.101)	1.32	(0.277)	ND	(0.972)	ND	(5.398)
1,2,3,7,8-PeCDD	ND	(0.379)	ND	(0.634)	ND	(1.645)	ND	(8.622)
1,2,3,7,8-PeCDF	ND	(0.142)	ND	(0.437)	ND	(0.642)	ND	(3.086)
2,3,4,6,7,8-HxCDF	1.23	(0.118)	ND	(0.408)	ND	(2.179)	ND	(10.543)
2,3,4,7,8-PeCDF	ND	(0.156)	ND	(0.484)	ND	(0.688)	ND	(3.332)
2,3,7,8-TCDD	ND	(0.074)	ND	(0.373)	ND	(3.168)	ND	(10.507)
2,3,7,8-TCDF	ND	(0.115)	ND	(0.483)	ND	(1.355)	ND	(3.961)
OCDD	6.02	(0.303)	10.38	(1.61)	ND	(2.14)	18.69 J	(23.038)
OCDF	3.7	(0.253)	ND	(1.097)	ND	(5.378)	11.22 J	(23.911)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID											
	LOCATION ID											
	SAMPLE ID											
PARAMETER	LS LS-01 9303-ALS-01-01			LS LS-02 9303-ALS-02-01			A A-01 9303-BA-01-D1			DT DT-02 9303-BDT-01-01		
SOP-9017 - Chlorinated Pesticides and PCBs (ng/g)												
2,4'-DDD	ND		(1.5408)	0.040962	J	(0.642)	1.199736	J	(2.205344)	0.486852	J	(4.444615)
2,4'-DDE	ND		(0.708)	ND		(0.295)	ND		(1.013359)	0.077829	J	(2.042308)
2,4'-DDT	ND		(1.1232)	0.201028	J	(0.468)	1.310458	J	(1.607634)	ND		(3.24)
4,4'-DDD	ND		(0.9216)	1.105443		(0.384)	30.544514		(1.319084)	36.496438		(2.658462)
4,4'-DDE	ND		(1.8144)	0.433354	J	(0.756)	13.596911		(2.596947)	16.776146		(5.233846)
4,4'-DDT	ND		(0.9096)	ND		(0.379)	3.021062		(1.301908)	0.250845	J	(2.623846)
Aldrin	0.792769	J	(1.1784)	ND		(0.491)	ND		(1.686641)	ND		(3.399231)
Dieldrin	0.374118	J	(1.5912)	0.425118	J	(0.663)	ND		(2.277481)	5.606386		(4.59)
Endrin	ND		(1.1712)	ND		(0.488)	ND		(1.676336)	ND		(3.378462)
HCB	ND		(1.2888)	0.048664	J	(0.537)	1.362062	J	(1.844656)	0.34755	J	(3.717692)
Heptachlor	0.428346	J	(1.236)	0.736828		(0.515)	ND		(1.769084)	0.146688	J	(3.565385)
Heptachlor epoxide	ND		(1.3752)	ND		(0.573)	ND		(1.968321)	ND		(3.966923)
Mirex	ND		(1.3032)	ND		(0.543)	ND		(1.865267)	ND		(3.759231)
Oxychlordane	0.561723	J	(1.7088)	0.646152	J	(0.712)	0.82155	J	(2.445802)	4.814045	J	(4.929231)
Total BHCs	4.572014		(1.6626)	3.570403		(0.69275)	1.362062	J	(2.379676)	0.750344	J	(4.795962)
Total Chlordanes	4.305648		(1.709143)	2.363547		(0.712143)	4.583091		(2.446292)	13.495684		(4.93022)
Total DDTs	ND		(1.1696)	1.780787		(0.487333)	49.672681		(1.674046)	54.088109		(3.373846)
Total Decachlorobiphenyls	ND		(1.4088)	ND		(0.587)	ND		(2.016412)	ND		(4.063846)
Total Dichlorobiphenyls	30.658548		(2.0136)	26.114941		(0.839)	ND		(2.882061)	0.44	J	(5.808462)
Total Heptachlorobiphenyls	ND		(0.8592)	0.046659	J	(0.358)	59.85		(1.229771)	1.06	J	(2.478462)
Total Hexachlorobiphenyls	1.698597		(0.96)	0.988588		(0.4)	146.9		(1.374046)	13.69		(2.769231)
Total Nonachlorobiphenyls	ND		(1.4184)	ND		(0.591)	ND		(2.030153)	0.26	J	(4.091538)
Total Octachlorobiphenyls	ND		(2.1264)	ND		(0.886)	ND		(3.043511)	0.44	J	(6.133846)
Total PCBs	58.780414		(1.603543)	52.989777		(0.668143)	422.11888		(2.295147)	42.304707		(4.625604)
Total Pentachlorobiphenyls	2.292701		(1.2288)	2.778839		(0.512)	177.94		(1.758779)	9.1		(3.544615)
Total Tetrachlorobiphenyls	3.079107		(0.5784)	10.348213		(0.241)	34.87		(0.827863)	13.44		(1.668462)
Total Trichlorobiphenyls	21.051461		(1.2528)	12.712538		(0.522)	2.56		(1.79313)	3.86		(3.613846)
Toxaphene	ND		(3.9488)	ND		(1.645333)	ND		(5.651908)	ND		(11.390769)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID LS LS-01 9303-ALS-01-01			LS LS-02 9303-ALS-02-01			A A-01 9303-BA-01-01			DT DT-02 9303-BDT-01-01		
alpha-BHC	ND		(1.2528)	1.092625		(0.522)	ND		(1.79313)	ND		(3.613846)
alpha-Chlordane	0.965408	J	(1.8048)	0.209174	J	(0.752)	ND		(2.583206)	2.492469	J	(5.206154)
beta-BHC	ND		(3.2616)	ND		(1.359)	ND		(4.668321)	0.750344	J	(9.408462)
cis-Nonachlor	ND		(0.5208)	0.119608	J	(0.217)	2.491196		(0.74542)	2.61465		(1.502308)
delta-BHC	ND		(1.3416)	ND		(0.559)	ND		(1.920229)	ND		(3.87)
gamma-BHC	4.572014		(0.7944)	2.477778		(0.331)	ND		(1.137023)	ND		(2.291538)
gamma-Chlordane	1.733695		(0.8592)	0.521984		(0.358)	ND		(1.229771)	ND		(2.478462)
trans-Nonachlor	0.616477	J	(4.4592)	0.129801	J	(1.858)	1.270345	J	(6.382443)	3.427832	J	(12.863077)
SW8270 - Semivolatile Organics (ug/kg)												
1,2,4,5-Tetrachlorobenzene	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
1,2,4-Trichlorobenzene	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
1,2-Dichlorobenzene	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
1,3-Dichlorobenzene	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
1,3-Dinitrobenzene	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
1,4-Dichlorobenzene	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
1,4-Naphthoquinone	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
1,4-Phenylenediamine	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
1-Naphthylamine	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
2,3,4,6-Tetrachlorophenol	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
2,4,5-Trichlorophenol	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
2,4,6-Trichlorophenol	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
2,4-Dichlorophenol	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
2,4-Dimethylphenol	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
2,4-Dinitrophenol	ND		(1563)	ND		(633)	ND		(4292)	ND		(2128)
2,4-Dinitrotoluene	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
2,6-Dichlorophenol	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
2,6-Dinitrotoluene	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
2-Acetylaminofluorene	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)
2-Chloronaphthalene	ND		(781)	ND		(316)	ND		(2146)	ND		(1064)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID LS LS-01 9303-ALS-01-01		LS LS-02 9303-ALS-02-01		A A-01 9303-BA-01-01		DT DT-02 9303-BDT-01-01	
2-Chlorophenol	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
2-Methylnaphthalene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
2-Methylphenol	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
2-Naphthylamine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
2-Nitroaniline	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
2-Nitrophenol	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
2-Picoline	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
3,3-Dichlorobenzidine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
3,3-Dimethoxybenzidine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
3-Methylchloroanthrene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
3-Methylphenol	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
3-Nitroaniline	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
4,6-Dinitro-2-methylphenol	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
4-Aminobiphenyl	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
4-Bromophenyl-phenylether	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
4-Chloro-3-methylphenol	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
4-Chloroaniline	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
4-Chlorophenyl-phenylether	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
4-Methylphenol	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
4-Nitroaniline	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
4-Nitrophenol	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
4-Nitroquinoline-1-oxide	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
5-Nitro-o-toluidine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
7,12-Dimethylbenz(a)anthracene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Acenaphthene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Acenaphthylene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Acetophenone	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Aniline	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Anthracene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID LS LS-01 9303-ALS-01-01		LS LS-02 9303-ALS-02-01		A A-01 9303-BA-01-01		DT DT-02 9303-BDT-01-01	
Aramite (peak 1)	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Aramite (peak 2)	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Benzo(a)anthracene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Benzo(a)pyrene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Benzo(b)fluoranthene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Benzo(g,h,i)perylene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Benzo(k)fluoranthene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Benzyl alcohol	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Butylbenzylphthalate	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Chlorobenzilate	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Chrysene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Di-n-butylphthalate	1942.3	(781)	ND	(316)	ND	(2146)	ND	(1064)
Di-n-octyphthalate	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Diallate (peak 1)	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Diallate (peak 2)	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Dibenz(a,h)anthracene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Dibenzofuran	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Diethylphthalate	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Dimethylphenethyamine	ND	(9375)	ND	(3797)	ND	(25751)	ND	(12766)
Dimethylphthalate	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Diphenylamine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Ethylmethanesulfonate	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Fluoranthene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Fluorene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Hexachlorobenzene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Hexachlorobutadiene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Hexachlorocyclopentadiene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Hexachloroethane	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Hexachlorophene	ND	(158594)	ND	(64241)	ND	(435622)	ND	(215957)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
	LS		LS		A		DT	
	LS-01		LS-02		A-01		DT-02	
PARAMETER	9303-ALS-01-01		9303-ALS-02-01		9303-BA-01-01		9303-BDT-01-01	
Hexachloropropene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Indeno(1,2,3-cd)pyrene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Isophorone	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Isosafrole	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Methapyrilene	ND	(3906)	ND	(1582)	ND	(10730)	ND	(5319)
Methylmethanesulfonate	ND	(3906)	ND	(1582)	ND	(10730)	ND	(5319)
Naphthalene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Nitrobenzene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Pentachlorobenzene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Pentachloroethane	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Pentachloronitrobenzene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Pentachlorophenol	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Phenactin	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Phenanthrene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Phenol	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Pronamide	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Pyrene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Pyridine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
Safrole	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
bis(2-Chloroethoxy)methane	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
bis(2-Chloroethyl)ether	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
bis(2-Chloroisopropyl)ether	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
bis(2-Ethylhexyl)phthalate	1669.2	(781)	1851.8	(316)	17411.9	(2146)	2996.4	(1064)
n-Nitroso-di-n-butylamine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
n-Nitroso-di-n-propylamine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
n-Nitrosodiethylamine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
n-Nitrosodimethylamine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
n-Nitrosodiphenylamine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
n-Nitrosomethylethylamine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID LS LS-01 9303-ALS-01-01		LS LS-02 9303-ALS-02-01		A A-01 9303-BA-01-01		DT DT-02 9303-BDT-01-01	
n-Nitrosomorpholine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
n-Nitrosopiperidine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
n-Nitrosopyrrolidine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
o-Toluidine	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
p-Dimethylaminoazobenzene	ND	(781)	ND	(316)	ND	(2146)	ND	(1064)
SW8290 - Dioxins and Furans (pg/g)								
1,2,3,4,6,7,8-HpCDD	ND	(3.697)	ND	(4.473)	12.76	(3.07)	ND	(1.459)
1,2,3,4,6,7,8-HpCDF	ND	(4.183)	ND	(2.871)	ND	(2.08)	ND	(1.539)
1,2,3,4,7,8,9-HpCDF	ND	(3.271)	ND	(4.205)	ND	(2.84)	ND	(4.462)
1,2,3,4,7,8-HxCDD	ND	(4.444)	ND	(4.37)	ND	(3.71)	ND	(1)
1,2,3,4,7,8-HxCDF	13.86	(7.747)	ND	(3.814)	ND	(2.72)	ND	(1.02)
1,2,3,6,7,8-HxCDD	ND	(3.521)	ND	(4.273)	ND	(3.87)	ND	(6.294)
1,2,3,6,7,8-HxCDF	ND	(19.683)	ND	(3.525)	ND	(2.6)	ND	(6.791)
1,2,3,7,8,9-HxCDD	ND	(3.456)	ND	(4.194)	ND	(1.97)	ND	(0.995)
1,2,3,7,8,9-HxCDF	8.4	(1.026)	ND	(2.546)	ND	(1.99)	ND	(0.883)
1,2,3,7,8-PeCDD	ND	(0.602)	ND	(4.994)	ND	(2.39)	ND	(3.716)
1,2,3,7,8-PeCDF	ND	(2.98)	ND	(2.544)	ND	(3.06)	ND	(1.367)
2,3,4,6,7,8-HxCDF	ND	(1.351)	ND	(4.756)	ND	(3.35)	ND	(1.209)
2,3,4,7,8-PeCDF	ND	(1.006)	ND	(2.639)	ND	(3.19)	ND	(1.473)
2,3,7,8-TCDD	ND	(0.99)	ND	(7.992)	ND	(3.96)	ND	(5.653)
2,3,7,8-TCDF	ND	(0.613)	ND	(5.801)	ND	(2.34)	ND	(4.252)
OCDD	ND	(6.629)	ND	(4.828)	100.01	(5.31)	31.26	(8.04)
OCDF	ND	(3.376)	ND	(4.345)	ND	(6.01)	ND	(6.902)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
	E		DT		DT		G	
	E-01		DT-03		DT-04		G-01	
PARAMETER	9303-BE-01-01		9303-FDT-02-01		9303-FDT-03-01		9303-FG-01-01	
SOP-9017 - Chlorinated Pesticides and PCBs (ng/g)								
2,4'-DDD	0.325484 J	(1.112223)	2.67132	(0.334957)	31.517338	(0.311482)	0.613033	(0.223953)
2,4'-DDE	ND	(0.511068)	0.443573	(0.153913)	3.388936	(0.143127)	ND	(0.102907)
2,4'-DDT	ND	(0.81078)	ND	(0.244174)	3.722155	(0.227062)	0.836387	(0.163256)
4,4'-DDD	15.056643	(0.665255)	127.32590 C	(0.200348)	1753.9943 C	(0.186307)	23.308038	(0.133953)
4,4'-DDE	2.960388	(1.309721)	143.11968 C	(0.394435)	556.95018 C	(0.366792)	11.439561	(0.263721)
4,4'-DDT	ND	(0.656593)	20.622559	(0.197739)	93.366797 C	(0.183881)	1.697564	(0.132209)
Aldrin	ND	(0.850626)	ND	(0.256174)	ND	(0.238221)	ND	(0.171279)
Dieldrin	ND	(1.148604)	1.774353	(0.345913)	4.219011	(0.321671)	1.611472	(0.231279)
Endrin	ND	(0.845428)	ND	(0.254609)	0.474753	(0.236765)	ND	(0.170233)
HCB	ND	(0.930318)	0.228539 J	(0.280174)	0.626663	(0.260539)	0.417477	(0.187326)
Heptachlor	0.041456 J	(0.892204)	ND	(0.268696)	0.127827 J	(0.249865)	0.039582 J	(0.179651)
Heptachlor epoxide	ND	(0.992685)	ND	(0.298957)	0.505842	(0.278005)	0.063493 J	(0.199884)
Mirex	ND	(0.940712)	ND	(0.283304)	ND	(0.26345)	ND J	(0.189419)
Oxychlordane	ND	(1.233494)	17.297057	(0.371478)	9.633504	(0.345445)	0.626268	(0.248372)
Total BHCs	ND	(1.200144)	0.862106	(0.361435)	2.434638	(0.336105)	1.441619	(0.241657)
Total Chlordanes	0.151529 J	(1.233741)	133.31521	(0.371553)	56.046004	(0.345514)	3.773622	(0.248422)
Total DDTs	18.342515	(0.844273)	294.18303	(0.254261)	2442.9397	(0.236442)	37.894584	(0.17)
Total Decachlorobiphenyls	ND	(1.016939)	ND	(0.306261)	ND	(0.284798)	ND	(0.204767)
Total Dichlorobiphenyls	0.27 J	(1.453513)	0.04 J	(0.437739)	0.08 J	(0.407062)	0.32	(0.292674)
Total Heptachlorobiphenyls	3.02	(0.620212)	22.53	(0.186783)	38.22	(0.173693)	28.22	(0.124884)
Total Hexachlorobiphenyls	10.26	(0.692974)	34.93	(0.208696)	62.92	(0.19407)	41.36	(0.139535)
Total Nonachlorobiphenyls	ND	(1.023869)	0.14 J	(0.308348)	0.92	(0.286739)	ND	(0.206163)
Total Octachlorobiphenyls	ND	(1.534937)	5.21	(0.462261)	8.05	(0.429865)	0.32	(0.30907)
Total PCBs	31.975742	(1.157514)	124.82974	(0.348596)	201.26587	(0.324166)	177.91847	(0.233073)
Total Pentachlorobiphenyls	12.95	(0.887007)	25.42	(0.26713)	69.72	(0.24841)	72.94	(0.178605)
Total Tetrachlorobiphenyls	5.09	(0.417517)	13.36	(0.125739)	12.88	(0.116927)	29.49	(0.08407)
Total Trichlorobiphenyls	0.37 J	(0.904331)	23.18	(0.272348)	8.47	(0.253261)	5.26	(0.182093)
Toxaphene	ND	(2.850433)	ND	(0.858435)	ND	(0.798275)	ND	(0.573953)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
PARAMETER	E E-01 9303-BE-01-01		DT DT-03 9303-FDT-02-01		DT DT-04 9303-FDT-03-01		G G-01 9303-FG-01-01	
alpha-BHC	ND	(0.904331)	ND	(0.272348)	ND	(0.253261)	0.336665	(0.182093)
alpha-Chlordane	ND	(1.302791)	13.653609	(0.392348)	9.37676	(0.364852)	0.655661	(0.262326)
beta-BHC	ND	(2.354379)	0.280343 J	(0.709043)	0.424632 J	(0.659353)	0.120172 J	(0.47407)
cis-Nonachlor	ND	(0.375938)	20.202623	(0.113217)	6.76955	(0.105283)	0.609345	(0.075698)
delta-BHC	ND	(0.968431)	0.194827 J	(0.291652)	0.407127	(0.271213)	ND	(0.195)
gamma-BHC	ND	(0.573436)	0.386936	(0.172696)	1.602879	(0.160593)	0.984782	(0.115465)
gamma-Chlordane	ND	(0.620212)	4.88883	(0.186783)	3.055722	(0.173693)	0.217855	(0.124884)
trans-Nonachlor	0.110073 J	(3.218864)	77.2731 C	(0.969391)	26.576798	(0.901456)	1.561417	(0.64814)
SW8270 - Semivolatile Organics (ug/kg)								
1,2,4,5-Tetrachlorobenzene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
1,2,4-Trichlorobenzene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
1,2-Dichlorobenzene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
1,3-Dichlorobenzene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
1,3-Dinitrobenzene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
1,4-Dichlorobenzene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
1,4-Naphthoquinone	ND	(775)	ND	(114)	ND	(95)	ND	(125)
1,4-Phenylenediamine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
1-Naphthylamine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
2,3,4,6-Tetrachlorophenol	ND	(775)	ND	(114)	ND	(95)	ND	(125)
2,4,5-Trichlorophenol	ND	(775)	ND	(114)	ND	(95)	ND	(125)
2,4,6-Trichlorophenol	ND	(775)	ND	(114)	ND	(95)	ND	(125)
2,4-Dichlorophenol	ND	(775)	ND	(114)	ND	(95)	ND	(125)
2,4-Dimethylphenol	ND	(775)	ND	(114)	ND	(95)	ND	(125)
2,4-Dinitrophenol	ND	(1550)	ND	(228)	ND	(190)	ND	(249)
2,4-Dinitrotoluene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
2,6-Dichlorophenol	ND	(775)	ND	(114)	ND	(95)	ND	(125)
2,6-Dinitrotoluene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
2-Acetylaminofluorene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
2-Chloronaphthalene	ND	(775)	ND	(114)	ND	(95)	ND	(125)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID E E-01 9303-BE-01-01			DT DT-03 9303-FDT-02-01		DT DT-04 9303-FDT-03-01		G G-01 9303-FG-01-01	
2-Chlorophenol	ND		(775)	ND	(114)	ND	(95)	ND	(125)
2-Methylnaphthalene	ND		(775)	ND	(114)	ND	(95)	ND	(125)
2-Methylphenol	ND		(775)	ND	(114)	ND	(95)	ND	(125)
2-Naphthylamine	377.8	J	(775)	ND	(114)	ND	(95)	ND	(125)
2-Nitroaniline	ND		(775)	ND	(114)	ND	(95)	ND	(125)
2-Nitrophenol	ND		(775)	ND	(114)	ND	(95)	ND	(125)
2-Picoline	ND		(775)	ND	(114)	ND	(95)	ND	(125)
3,3-Dichlorobenzidine	ND		(775)	ND	(114)	ND	(95)	ND	(125)
3,3-Dimethoxybenzidine	ND		(775)	ND	(114)	ND	(95)	ND	(125)
3-Methylchloroanthrene	ND		(775)	ND	(114)	ND	(95)	ND	(125)
3-Methylphenol	ND		(775)	ND	(114)	ND	(95)	ND	(125)
3-Nitroaniline	ND		(775)	ND	(114)	ND	(95)	ND	(125)
4,6-Dinitro-2-methylphenol	ND		(775)	ND	(114)	ND	(95)	ND	(125)
4-Aminobiphenyl	ND		(775)	ND	(114)	ND	(95)	ND	(125)
4-Bromophenyl-phenylether	ND		(775)	ND	(114)	ND	(95)	ND	(125)
4-Chloro-3-methylphenol	ND		(775)	ND	(114)	ND	(95)	ND	(125)
4-Chloroaniline	ND		(775)	ND	(114)	ND	(95)	ND	(125)
4-Chlorophenyl-phenylether	ND		(775)	ND	(114)	ND	(95)	ND	(125)
4-Methylphenol	ND		(775)	ND	(114)	ND	(95)	ND	(125)
4-Nitroaniline	ND		(775)	ND	(114)	ND	(95)	ND	(125)
4-Nitrophenol	ND		(775)	ND	(114)	ND	(95)	ND	(125)
4-Nitroquinoline-1-oxide	ND		(775)	ND	(114)	ND	(95)	ND	(125)
5-Nitro-o-toluidine	ND		(775)	ND	(114)	ND	(95)	ND	(125)
7,12-Dimethylbenz(a)anthracene	ND		(775)	ND	(114)	ND	(95)	ND	(125)
Acenaphthene	ND		(775)	ND	(114)	ND	(95)	ND	(125)
Acenaphthylene	ND		(775)	ND	(114)	ND	(95)	ND	(125)
Acetophenone	ND		(775)	ND	(114)	ND	(95)	ND	(125)
Aniline	ND		(775)	ND	(114)	ND	(95)	ND	(125)
Anthracene	ND		(775)	ND	(114)	ND	(95)	ND	(125)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
	E		DT		DT		G	
	E-01		DT-03		DT-04		G-01	
PARAMETER	9303-BE-01-01		9303-FDT-02-01		9303-FDT-03-01		9303-FG-01-01	
Aramite (peak 1)	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Aramite (peak 2)	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Benzo(a)anthracene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Benzo(a)pyrene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Benzo(b)fluoranthene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Benzo(g,h,i)perylene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Benzo(k)fluoranthene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Benzyl alcohol	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Butylbenzylphthalate	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Chlorobenzilate	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Chrysene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Di-n-butylphthalate	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Di-n-octyphthalate	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Diallate (peak 1)	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Diallate (peak 2)	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Dibenz(a,h)anthracene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Dibenzofuran	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Diethylphthalate	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Dimethylphenethyamine	ND	(9302)	ND	(1367)	ND	(1141)	ND	(1496)
Dimethylphthalate	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Diphenylamine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Ethylmethanesulfonate	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Fluoranthene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Fluorene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Hexachlorobenzene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Hexachlorobutadiene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Hexachlorocyclopentadiene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Hexachloroethane	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Hexachlorophene	ND	(157364)	ND	(23121)	ND	(19297)	ND	(25312)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID E E-01 9303-BE-01-01		DT DT-03 9303-FDT-02-01		DT DT-04 9303-FDT-03-01		G G-01 9303-FG-01-01	
Hexachloropropene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Indeno(1,2,3-cd)pyrene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Isophorone	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Isosafrole	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Methapyrilene	ND	(3876)	ND	(569)	ND	(475)	ND	(623)
Methylmethanesulfonate	ND	(3876)	ND	(569)	ND	(475)	ND	(623)
Naphthalene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Nitrobenzene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Pentachlorobenzene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Pentachloroethane	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Pentachloronitrobenzene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Pentachlorophenol	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Phenactin	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Phenanthrene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Phenol	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Pronamide	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Pyrene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Pyridine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
Safrole	ND	(775)	ND	(114)	ND	(95)	ND	(125)
bis(2-Chloroethoxy)methane	ND	(775)	ND	(114)	ND	(95)	ND	(125)
bis(2-Chloroethyl)ether	ND	(775)	ND	(114)	ND	(95)	ND	(125)
bis(2-Chloroisopropyl)ether	ND	(775)	ND	(114)	ND	(95)	ND	(125)
bis(2-Ethylhexyl)phthalate	26009.9	(775)	ND	(114)	ND	(95)	ND	(125)
n-Nitroso-di-n-butylamine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
n-Nitroso-di-n-propylamine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
n-Nitrosodiethylamine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
n-Nitrosodimethylamine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
n-Nitrosodiphenylamine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
n-Nitrosomethylethylamine	ND	(775)	ND	(114)	ND	(95)	ND	(125)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID E E-01 9303-BE-01-01		DT DT-03 9303-FDT-02-01		DT DT-04 9303-FDT-03-01		G G-01 9303-FG-01-01	
n-Nitrosomorpholine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
n-Nitrosopiperidine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
n-Nitrosopyrrolidine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
o-Toluidine	ND	(775)	ND	(114)	ND	(95)	ND	(125)
p-Dimethylaminoazobenzene	ND	(775)	ND	(114)	ND	(95)	ND	(125)
SW8290 - Dioxins and Furans (pg/g)								
1,2,3,4,6,7,8-HpCDD	ND	(0.596)	ND	(0.215)	ND	(0.802)	ND	(0.057)
1,2,3,4,6,7,8-HpCDF	ND	(0.607)	ND	(0.381)	ND	(1.01)	ND	(0.151)
1,2,3,4,7,8,9-HpCDF	ND	(0.852)	ND	(0.516)	ND	(1.488)	ND	(0.215)
1,2,3,4,7,8-HxCDD	ND	(1.145)	ND	(0.723)	ND	(1.537)	ND	(0.34)
1,2,3,4,7,8-HxCDF	0.55	(0.544)	ND	(0.479)	ND	(1.004)	ND	(0.042)
1,2,3,6,7,8-HxCDD	ND	(0.725)	ND	(0.729)	ND	(0.521)	ND	(0.34)
1,2,3,6,7,8-HxCDF	ND	(0.486)	ND	(0.427)	ND	(0.962)	ND	(0.166)
1,2,3,7,8,9-HxCDD	ND	(0.711)	ND	(0.715)	ND	(0.511)	ND	(0.334)
1,2,3,7,8,9-HxCDF	ND	(0.52)	0.34	(0.234)	ND	(0.9)	ND	(0.043)
1,2,3,7,8-PeCDD	ND	(1.176)	ND	(0.492)	ND	(1.135)	ND	(0.182)
1,2,3,7,8-PeCDF	ND	(0.871)	ND	(0.347)	ND	(0.51)	ND	(0.104)
2,3,4,6,7,8-HxCDF	ND	(1.45)	ND	(0.623)	ND	(1.291)	ND	(0.262)
2,3,4,7,8-PeCDF	ND	(0.902)	ND	(0.358)	ND	(0.562)	ND	(0.109)
2,3,7,8-TCDD	ND	(0.267)	ND	(0.128)	ND	(0.599)	ND	(0.057)
2,3,7,8-TCDF	ND	(0.87)	ND	(0.655)	ND	(1.097)	ND	(0.241)
OCDD	30.28	(2.47)	4.39	(0.637)	48.67	(2.576)	ND	(0.344)
OCDF	ND	(2.84)	ND	(0.716)	ND	(3.25)	ND	(0.106)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID LH LH-01 9303-FLH-01-01			LH LH-02 9303-FLH-02-01			LH LH-03 9303-FLH-03-01			LH LH-03 9303-FLH-03-02 Dup of 9303-FLH-03-01		
SOP-9017 - Chlorinated Pesticides and PCBs (ng/g)												
2,4'-DDD	ND		(1.284)	0.027325	J	(2.358367)	0.199093	J	(0.515893)	0.096163	J	(0.446178)
2,4'-DDE	ND		(0.59)	ND		(1.083673)	ND		(0.237054)	ND		(0.205019)
2,4'-DDT	ND		(0.936)	ND		(1.719184)	ND		(0.376071)	ND		(0.325251)
4,4'-DDD	7.124441		(0.768)	4.701421		(1.410612)	10.023438		(0.308571)	5.506234		(0.266873)
4,4'-DDE	5.527991		(1.512)	5.673576		(2.777143)	7.617106		(0.6075)	3.86421		(0.525405)
4,4'-DDT	1.006567		(0.758)	ND		(1.392245)	1.306992		(0.304554)	0.023475	J	(0.263398)
Aldrin	ND		(0.982)	ND		(1.803673)	ND		(0.394554)	ND		(0.341236)
Dieldrin	1.711324		(1.326)	ND		(2.43551)	0.733496		(0.532768)	0.307391	J	(0.460772)
Endrin	ND		(0.976)	ND		(1.792653)	ND		(0.392143)	ND		(0.339151)
HCB	ND		(1.074)	0.018562	J	(1.972653)	0.347677	J	(0.431518)	ND		(0.373205)
Heptachlor	0.337084	J	(1.03)	0.130928	J	(1.891837)	0.134706	J	(0.413839)	ND	J	(0.357915)
Heptachlor epoxide	ND		(1.146)	ND		(2.104898)	ND		(0.460446)	ND		(0.398224)
Mirex	ND		(1.086)	ND		(1.994694)	ND		(0.436339)	ND		(0.377375)
Oxychlordane	0.554841	J	(1.424)	0.550607	J	(2.61551)	0.748158		(0.572143)	0.402058	J	(0.494826)
Total BHCs	ND		(1.3855)	0.961575	J	(2.544796)	1.054063		(0.556674)	0.572222		(0.481448)
Total Chlordanes	4.606033		(1.424286)	4.233249		(2.616035)	5.71428		(0.572258)	3.031069		(0.494926)
Total DDTs	13.658999		(0.974667)	10.402321		(1.790204)	19.146628		(0.391607)	9.490082		(0.338687)
Total Decachlorobiphenyls	ND		(1.174)	ND		(2.156327)	ND		(0.471696)	ND		(0.407954)
Total Dichlorobiphenyls	0.533698	J	(1.678)	0.252022	J	(3.082041)	1.502601		(0.674196)	0.62		(0.583089)
Total Heptachlorobiphenyls	0.194928	J	(0.716)	4.032405		(1.315102)	2.115553		(0.287679)	2.26		(0.248803)
Total Hexachlorobiphenyls	5.358026		(0.8)	3.154784		(1.469388)	10.124701		(0.321429)	3.87		(0.277992)
Total Nonachlorobiphenyls	ND		(1.182)	ND		(2.17102)	ND		(0.474911)	ND		(0.410734)
Total Octachlorobiphenyls	ND		(1.772)	0.207947		(3.254694)	0.300599	J	(0.711964)	ND		(0.615753)
Total PCBs	16.666198		(1.336286)	12.990991		(2.454402)	27.932653		(0.536901)	14.239688		(0.464346)
Total Pentachlorobiphenyls	4.666744		(1.024)	1.682852	J	(1.880816)	8.66748		(0.411429)	4.43		(0.35583)
Total Tetrachlorobiphenyls	3.67013		(0.482)	3.337493		(0.885306)	3.59914		(0.193661)	2.15		(0.16749)
Total Trichlorobiphenyls	2.242672		(1.044)	0.323489	J	(1.917551)	1.622579		(0.419464)	0.92		(0.36278)
Toxaphene	ND		(3.290667)	ND		(6.044082)	ND		(1.322143)	ND		(1.143475)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
PARAMETER	LH LH-01 9303-FLH-01-01			LH LH-02 9303-FLH-02-01			LH LH-03 9303-FLH-03-01			LH LH-03 9303-FLH-03-02 Dup of 9303-FLH-03-01		
alpha-BHC	ND		(1.044)	ND		(1.917551)	ND		(0.419464)	ND		(0.36278)
alpha-Chlordane	0.45402	J	(1.504)	0.442815	J	(2.762449)	0.661539		(0.604286)	0.491774	J	(0.522625)
beta-BHC	ND		(2.718)	0.961575	J	(4.992245)	ND		(1.092054)	ND		(0.944479)
cis-Nonachlor	0.761203		(0.434)	0.520437	J	(0.797143)	1.01979		(0.174375)	0.709764		(0.150811)
delta-BHC	ND		(1.118)	ND		(2.053469)	0.149954	J	(0.449196)	ND		(0.388494)
gamma-BHC	ND		(0.662)	ND		(1.215918)	0.904109		(0.265982)	0.572222		(0.230039)
gamma-Chlordane	ND		(0.716)	ND		(1.315102)	0.172268	J	(0.287679)	0.027399	J	(0.248803)
trans-Nonachlor	2.498885	J	(3.716)	2.588462	J	(6.825306)	2.977819		(1.493036)	1.39535		(1.291274)
SW8270 - Semivolatile Organics (ug/kg)												
1,2,4,5-Tetrachlorobenzene	ND		(133)	ND		(164)	ND		(292)	ND		(134)
1,2,4-Trichlorobenzene	ND		(133)	ND		(164)	ND		(292)	ND		(134)
1,2-Dichlorobenzene	ND		(133)	ND		(164)	ND		(292)	ND		(134)
1,3-Dichlorobenzene	ND		(133)	ND		(164)	ND		(292)	ND		(134)
1,3-Dinitrobenzene	ND		(133)	ND		(164)	ND		(292)	ND		(134)
1,4-Dichlorobenzene	ND		(133)	ND		(164)	ND		(292)	ND		(134)
1,4-Naphthoquinone	ND		(133)	ND		(164)	ND		(292)	ND		(134)
1,4-Phenylenediamine	ND		(133)	ND		(164)	ND		(292)	ND		(134)
1-Naphthylamine	ND		(133)	ND		(164)	ND		(292)	ND		(134)
2,3,4,6-Tetrachlorophenol	ND		(133)	ND		(164)	ND		(292)	ND		(134)
2,4,5-Trichlorophenol	ND		(133)	ND		(164)	ND		(292)	ND		(134)
2,4,6-Trichlorophenol	ND		(133)	ND		(164)	ND		(292)	ND		(134)
2,4-Dichlorophenol	ND		(133)	ND		(164)	ND		(292)	ND		(134)
2,4-Dimethylphenol	ND		(133)	ND		(164)	ND		(292)	ND		(134)
2,4-Dinitrophenol	ND		(266)	ND		(329)	ND		(585)	ND		(267)
2,4-Dinitrotoluene	ND		(133)	ND		(164)	ND		(292)	ND		(134)
2,6-Dichlorophenol	ND		(133)	ND		(164)	ND		(292)	ND		(134)
2,6-Dinitrotoluene	ND		(133)	ND		(164)	ND		(292)	ND		(134)
2-Acetylaminofluorene	ND		(133)	ND		(164)	ND		(292)	ND		(134)
2-Chloronaphthalene	ND		(133)	ND		(164)	ND		(292)	ND		(134)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
PARAMETER	LH LH-01 9303-FLH-01-01		LH LH-02 9303-FLH-02-01		LH LH-03 9303-FLH-03-01		LH LH-03 9303-FLH-03-02 Dup of 9303-FLH-03-01	
2-Chlorophenol	ND	(133)	ND	(164)	ND	(292)	ND	(134)
2-Methylnaphthalene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
2-Methylphenol	ND	(133)	ND	(164)	ND	(292)	ND	(134)
2-Naphthylamine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
2-Nitroaniline	ND	(133)	ND	(164)	ND	(292)	ND	(134)
2-Nitrophenol	ND	(133)	ND	(164)	ND	(292)	ND	(134)
2-Picoline	ND	(133)	ND	(164)	ND	(292)	ND	(134)
3,3-Dichlorobenzidine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
3,3-Dimethoxybenzidine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
3-Methylchloroanthrene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
3-Methylphenol	ND	(133)	ND	(164)	ND	(292)	ND	(134)
3-Nitroaniline	ND	(133)	ND	(164)	ND	(292)	ND	(134)
4,6-Dinitro-2-methylphenol	ND	(133)	ND	(164)	ND	(292)	ND	(134)
4-Aminobiphenyl	ND	(133)	ND	(164)	ND	(292)	ND	(134)
4-Bromophenyl-phenylether	ND	(133)	ND	(164)	ND	(292)	ND	(134)
4-Chloro-3-methylphenol	ND	(133)	ND	(164)	ND	(292)	ND	(134)
4-Chloroaniline	ND	(133)	ND	(164)	ND	(292)	ND	(134)
4-Chlorophenyl-phenylether	ND	(133)	ND	(164)	ND	(292)	ND	(134)
4-Methylphenol	ND	(133)	ND	(164)	ND	(292)	ND	(134)
4-Nitroaniline	ND	(133)	ND	(164)	ND	(292)	ND	(134)
4-Nitrophenol	ND	(133)	ND	(164)	ND	(292)	ND	(134)
4-Nitroquinoline-1-oxide	ND	(133)	ND	(164)	ND	(292)	ND	(134)
5-Nitro-o-toluidine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
7,12-Dimethylbenz(a)anthracene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Acenaphthene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Acenaphthylene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Acetophenone	767.5	(133)	ND	(164)	ND	(292)	ND	(134)
Aniline	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Anthracene	ND	(133)	ND	(164)	ND	(292)	ND	(134)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
	LH		LH		LH		LH	
	LH-01		LH-02		LH-03		LH-03	
PARAMETER	9303-FLH-01-01		9303-FLH-02-01		9303-FLH-03-01		9303-FLH-03-02 Dup of 9303-FLH-03-01	
Aramite (peak 1)	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Aramite (peak 2)	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Benzo(a)anthracene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Benzo(a)pyrene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Benzo(b)fluoranthene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Benzo(g,h,i)perylene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Benzo(k)fluoranthene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Benzyl alcohol	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Butylbenzylphthalate	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Chlorobenzilate	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Chrysene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Di-n-butylphthalate	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Di-n-octyphthalate	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Diallate (peak 1)	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Diallate (peak 2)	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Dibenz(a,h)anthracene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Dibenzofuran	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Diethylphthalate	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Dimethylphenethyamine	ND	(1596)	ND	(1974)	ND	(3509)	ND	(1604)
Dimethylphthalate	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Diphenylamine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Ethylmethanesulfonate	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Fluoranthene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Fluorene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Hexachlorobenzene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Hexachlorobutadiene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Hexachlorocyclopentadiene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Hexachloroethane	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Hexachlorophene	ND	(26995)	ND	(33388)	ND	(59357)	ND	(27139)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID LH LH-01 9303-FLH-01-01		LH LH-02 9303-FLH-02-01		LH LH-03 9303-FLH-03-01		LH LH-03 9303-FLH-03-02 Dup of 9303-FLH-03-01	
Hexachloropropene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Indeno(1,2,3-cd)pyrene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Isophorone	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Isosafrole	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Methapyrilene	ND	(665)	ND	(822)	ND	(1462)	ND	(668)
Methylmethanesulfonate	ND	(665)	ND	(822)	ND	(1462)	ND	(668)
Naphthalene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Nitrobenzene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Pentachlorobenzene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Pentachloroethane	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Pentachloronitrobenzene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Pentachlorophenol	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Phenactin	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Phenanthrene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Phenol	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Pronamide	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Pyrene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Pyridine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
Safrole	ND	(133)	ND	(164)	ND	(292)	ND	(134)
bis(2-Chloroethoxy)methane	ND	(133)	ND	(164)	ND	(292)	ND	(134)
bis(2-Chloroethyl)ether	ND	(133)	ND	(164)	ND	(292)	ND	(134)
bis(2-Chloroisopropyl)ether	ND	(133)	ND	(164)	ND	(292)	ND	(134)
bis(2-Ethylhexyl)phthalate	ND	(133)	3486.9	(164)	33620	(292)	14223.7	(134)
n-Nitroso-di-n-butylamine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
n-Nitroso-di-n-propylamine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
n-Nitrosodiethylamine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
n-Nitrosodimethylamine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
n-Nitrosodiphenylamine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
n-Nitrosomethylethylamine	ND	(133)	ND	(164)	ND	(292)	ND	(134)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
	LH		LH		LH		LH	
	LH-01		LH-02		LH-03		LH-03	
PARAMETER	9303-FLH-01-01		9303-FLH-02-01		9303-FLH-03-01		9303-FLH-03-02 Dup of 9303-FLH-03-01	
n-Nitrosomorpholine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
n-Nitrosopiperidine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
n-Nitrosopyrrolidine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
o-Toluidine	ND	(133)	ND	(164)	ND	(292)	ND	(134)
p-Dimethylaminoazobenzene	ND	(133)	ND	(164)	ND	(292)	ND	(134)
SW8290 - Dioxins and Furans (pg/g)								
1,2,3,4,6,7,8-HpCDD	ND	(0.742)	ND	(0.687)	ND	(0.52)	ND	(0.479)
1,2,3,4,6,7,8-HpCDF	ND	(1.248)	ND	(2.738)	ND	(0.513)	ND	(0.506)
1,2,3,4,7,8,9-HpCDF	ND	(1.344)	ND	(5.608)	ND	(0.691)	ND	(0.594)
1,2,3,4,7,8-HxCDD	ND	(4.993)	ND	(3.835)	ND	(0.246)	ND	(1.079)
1,2,3,4,7,8-HxCDF	ND	(4.079)	ND	(0.769)	ND	(0.361)	ND	(0.381)
1,2,3,6,7,8-HxCDD	ND	(4.826)	ND	(4.161)	ND	(1.059)	ND	(1.097)
1,2,3,6,7,8-HxCDF	1.17 J	(3.263)	ND	(0.738)	0.28 J	(0.333)	ND	(0.349)
1,2,3,7,8,9-HxCDD	ND	(4.737)	ND	(4.084)	ND	(0.245)	0.19 J	(0.488)
1,2,3,7,8,9-HxCDF	ND	(1)	ND	(2.14)	ND	(0.363)	ND	(0.377)
1,2,3,7,8-PeCDD	ND	(2.368)	ND	(2.611)	ND	(0.508)	ND	(0.57)
1,2,3,7,8-PeCDF	ND	(1.178)	ND	(1.205)	ND	(0.321)	ND	(0.443)
2,3,4,6,7,8-HxCDF	ND	(1.258)	ND	(3.415)	ND	(0.482)	ND	(1.517)
2,3,4,7,8-PeCDF	ND	(1.728)	ND	(1.335)	ND	(0.349)	ND	(0.477)
2,3,7,8-TCDD	ND	(3.168)	ND	(3.755)	0.12	(0.109)	ND	(0.244)
2,3,7,8-TCDF	ND	(3.097)	ND	(2.889)	ND	(0.375)	ND	(0.492)
OCDD	7.41	(2.284)	17.41	(5.925)	3.91	(1.028)	3.26	(1.295)
OCDF	ND	(1.598)	ND	(4.073)	ND	(0.406)	ND	(0.614)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID								
	LOCATION ID								
	SAMPLE ID								
PARAMETER	LS LS-01 9303-GLS-01-01			DT DT-01 9303-IDT-01-01			LS LS-01 9303-NLS-01-01		
SOP-9017 - Chlorinated Pesticides and PCBs (ng/g)									
2,4'-DDD	ND		(0.560971)	0.060816	J	(0.817256)	ND		(0.73699)
2,4'-DDE	ND		(0.257767)	ND		(0.37553)	0.26124	J	(0.338648)
2,4'-DDT	ND		(0.408932)	ND		(0.595757)	0.350651	J	(0.537245)
4,4'-DDD	ND		(0.335534)	3.002182		(0.488826)	0.814334		(0.440816)
4,4'-DDE	4.971588		(0.660583)	6.457382		(0.962376)	1.724799		(0.867857)
4,4'-DDT	ND		(0.331165)	0.675352		(0.482461)	0.872702		(0.435077)
Aldrin	ND		(0.429029)	ND		(0.625035)	ND		(0.563648)
Dieldrin	1.765755		(0.57932)	0.286018	J	(0.843989)	ND		(0.761097)
Endrin	1.630398		(0.426408)	ND		(0.621216)	ND		(0.560204)
HCB	ND		(0.469223)	0.344579	J	(0.683593)	0.039523	J	(0.616454)
Heptachlor	ND		(0.45)	0.196947	J	(0.655587)	0.065941	J	(0.591199)
Heptachlor epoxide	ND		(0.50068)	ND		(0.72942)	ND		(0.657781)
Mirex	ND		(0.474466)	ND		(0.691231)	ND		(0.623342)
Oxychlordane	ND		(0.622136)	0.94311		(0.906365)	ND		(0.817347)
Total BHCs	0.992009		(0.605316)	1.032472		(0.88186)	0.890786		(0.795249)
Total Chlordanes	ND		(0.622261)	7.132289		(0.906547)	0.817811		(0.817511)
Total DDTs	4.971588		(0.425825)	10.195732		(0.620368)	4.023726		(0.559439)
Total Decachlorobiphenyls	ND		(0.512913)	ND		(0.747242)	ND		(0.673852)
Total Dichlorobiphenyls	0.01	J	(0.733107)	0.11	J	(1.068034)	0.2	J	(0.963138)
Total Heptachlorobiphenyls	1		(0.312816)	4.75		(0.455728)	0.78		(0.410969)
Total Hexachlorobiphenyls	9.89		(0.349515)	6.49		(0.509194)	2.42		(0.459184)
Total Nonachlorobiphenyls	ND		(0.516408)	ND		(0.752334)	ND		(0.678444)
Total Octachlorobiphenyls	ND		(0.774175)	ND		(1.127864)	ND		(1.017092)
Total PCBs	17.127229		(0.583814)	33.941765		(0.850535)	8.082163		(0.767001)
Total Pentachlorobiphenyls	1.73		(0.447379)	17.12		(0.651768)	1.71		(0.587755)
Total Tetrachlorobiphenyls	3.52		(0.210583)	5.38		(0.306789)	2.46		(0.276658)
Total Trichlorobiphenyls	0.97		(0.456117)	0.1	J	(0.664498)	0.52	J	(0.599235)
Toxaphene	ND		(1.43767)	ND		(2.094484)	ND		(1.888776)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID LS LS-01 9303-GLS-01-01			DT DT-01 9303-IDT-01-01			LS LS-01 9303-NLS-01-01		
alpha-BHC	ND		(0.456117)	0.31462	J	(0.664498)	0.679474		(0.599235)
alpha-Chlordane	ND		(0.657087)	3.253372		(0.957284)	ND		(0.863265)
beta-BHC	ND		(1.187476)	ND		(1.729986)	ND		(1.560077)
cis-Nonachlor	ND		(0.189612)	0.778972		(0.276238)	0.141239	J	(0.249107)
delta-BHC	ND		(0.488447)	ND		(0.711598)	ND		(0.641709)
gamma-BHC	0.992009		(0.289223)	0.373273	J	(0.421358)	0.171788	J	(0.379974)
gamma-Chlordane	ND		(0.312816)	ND		(0.455728)	ND		(0.410969)
trans-Nonachlor	ND		(1.623495)	1.959889	J	(2.365205)	0.61063	J	(2.132908)
SW8270 - Semivolatile Organics (ug/kg)									
1,2,4,5-Tetrachlorobenzene	ND		(329)	ND		(378)	ND		(536)
1,2,4-Trichlorobenzene	ND		(329)	ND		(378)	2104.3		(536)
1,2-Dichlorobenzene	ND		(329)	ND		(378)	ND		(536)
1,3-Dichlorobenzene	ND		(329)	ND		(378)	ND		(536)
1,3-Dinitrobenzene	ND		(329)	ND		(378)	ND		(536)
1,4-Dichlorobenzene	ND		(329)	ND		(378)	ND		(536)
1,4-Naphthoquinone	ND		(329)	ND		(378)	ND		(536)
1,4-Phenylenediamine	ND		(329)	ND		(378)	ND		(536)
1-Naphthylamine	ND		(329)	ND		(378)	ND		(536)
2,3,4,6-Tetrachlorophenol	ND		(329)	ND		(378)	ND		(536)
2,4,5-Trichlorophenol	ND		(329)	ND		(378)	ND		(536)
2,4,6-Trichlorophenol	ND		(329)	ND		(378)	ND		(536)
2,4-Dichlorophenol	ND		(329)	ND		(378)	ND		(536)
2,4-Dimethylphenol	ND		(329)	ND		(378)	ND		(536)
2,4-Dinitrophenol	ND		(658)	ND		(756)	ND		(1073)
2,4-Dinitrotoluene	ND		(329)	ND		(378)	ND		(536)
2,6-Dichlorophenol	ND		(329)	ND		(378)	ND		(536)
2,6-Dinitrotoluene	ND		(329)	ND		(378)	ND		(536)
2-Acetylaminofluorene	ND		(329)	ND		(378)	ND		(536)
2-Chloronaphthalene	ND		(329)	ND		(378)	ND		(536)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID LS LS-01 9303-GLS-01-01		DT DT-01 9303-IDT-01-01		LS LS-01 9303-NLS-01-01	
2-Chlorophenol	ND	(329)	ND	(378)	ND	(536)
2-Methylnaphthalene	ND	(329)	ND	(378)	ND	(536)
2-Methylphenol	ND	(329)	ND	(378)	ND	(536)
2-Naphthylamine	ND	(329)	ND	(378)	ND	(536)
2-Nitroaniline	ND	(329)	ND	(378)	ND	(536)
2-Nitrophenol	ND	(329)	ND	(378)	ND	(536)
2-Picoline	ND	(329)	ND	(378)	ND	(536)
3,3-Dichlorobenzidine	ND	(329)	ND	(378)	ND	(536)
3,3-Dimethoxybenzidine	ND	(329)	ND	(378)	ND	(536)
3-Methylchloroanthrene	NO	(329)	ND	(378)	ND	(536)
3-Methylphenol	ND	(329)	ND	(378)	ND	(536)
3-Nitroaniline	ND	(329)	ND	(378)	ND	(536)
4,6-Dinitro-2-methylphenol	ND	(329)	ND	(378)	ND	(536)
4-Aminobiphenyl	ND	(329)	ND	(378)	ND	(536)
4-Bromophenyl-phenylether	ND	(329)	ND	(378)	ND	(536)
4-Chloro-3-methylphenol	ND	(329)	ND	(378)	ND	(536)
4-Chloroaniline	ND	(329)	ND	(378)	ND	(536)
4-Chlorophenyl-phenylether	ND	(329)	ND	(378)	ND	(536)
4-Methylphenol	ND	(329)	ND	(378)	ND	(536)
4-Nitroaniline	ND	(329)	ND	(378)	ND	(536)
4-Nitrophenol	ND	(329)	ND	(378)	ND	(536)
4-Nitroquinoline-1-oxide	ND	(329)	ND	(378)	ND	(536)
5-Nitro-o-toluidine	ND	(329)	ND	(378)	ND	(536)
7,12-Dimethylbenz(a)anthracene	ND	(329)	ND	(378)	ND	(536)
Acenaphthene	ND	(329)	ND	(378)	ND	(536)
Acenaphthylene	ND	(329)	ND	(378)	ND	(536)
Acetophenone	ND	(329)	ND	(378)	ND	(536)
Aniline	ND	(329)	ND	(378)	ND	(536)
Anthracene	ND	(329)	ND	(378)	ND	(536)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID					
	LOCATION ID					
	SAMPLE ID					
	LS		DT		LS	
	LS-01		DT-01		LS-01	
PARAMETER	9303-GLS-01-01		9303-IDT-01-01		9303-NLS-01-01	
Aramite (peak 1)	ND	(329)	ND	(378)	ND	(536)
Aramite (peak 2)	ND	(329)	ND	(378)	ND	(536)
Benzo(a)anthracene	ND	(329)	ND	(378)	ND	(536)
Benzo(a)pyrene	ND	(329)	ND	(378)	ND	(536)
Benzo(b)fluoranthene	ND	(329)	ND	(378)	ND	(536)
Benzo(g,h,i)perylene	ND	(329)	ND	(378)	ND	(536)
Benzo(k)fluoranthene	ND	(329)	ND	(378)	ND	(536)
Benzyl alcohol	ND	(329)	ND	(378)	ND	(536)
Butylbenzylphthalate	ND	(329)	ND	(378)	ND	(536)
Chlorobenzilate	ND	(329)	ND	(378)	ND	(536)
Chrysene	ND	(329)	ND	(378)	ND	(536)
Di-n-butylphthalate	832.7	(329)	ND	(378)	ND	(536)
Di-n-octyphthalate	ND	(329)	ND	(378)	ND	(536)
Diallate (peak 1)	ND	(329)	ND	(378)	ND	(536)
Diallate (peak 2)	ND	(329)	ND	(378)	ND	(536)
Dibenz(a,h)anthracene	ND	(329)	ND	(378)	ND	(536)
Dibenzofuran	ND	(329)	ND	(378)	ND	(536)
Diethylphthalate	ND	(329)	ND	(378)	ND	(536)
Dimethylphenethyamine	ND	(3947)	ND	(4539)	ND	(6438)
Dimethylphthalate	ND	(329)	ND	(378)	ND	(536)
Diphenylamine	ND	(329)	ND	(378)	ND	(536)
Ethylmethanesulfonate	ND	(329)	ND	(378)	ND	(536)
Fluoranthene	ND	(329)	ND	(378)	ND	(536)
Fluorene	ND	(329)	ND	(378)	ND	(536)
Hexachlorobenzene	ND	(329)	ND	(378)	ND	(536)
Hexachlorobutadiene	ND	(329)	ND	(378)	ND	(536)
Hexachlorocyclopentadiene	ND	(329)	ND	(378)	ND	(536)
Hexachloroethane	ND	(329)	ND	(378)	ND	(536)
Hexachlorophene	ND	(66776)	ND	(76778)	ND	(108906)

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TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID LS LS-01 9303-GLS-01-01		DT DT-01 9303-IDT-01-01		LS LS-01 9303-NLS-01-01	
Hexachloropropene	ND	(329)	ND	(378)	ND	(536)
Indeno(1,2,3-cd)pyrene	ND	(329)	ND	(378)	ND	(536)
Isophorone	ND	(329)	ND	(378)	ND	(536)
Isosafrole	ND	(329)	ND	(378)	ND	(536)
Methapyrilene	ND	(1645)	ND	(1891)	ND	(2682)
Methylmethanesulfonate	ND	(1645)	ND	(1891)	ND	(2682)
Naphthalene	ND	(329)	ND	(378)	ND	(536)
Nitrobenzene	ND	(329)	ND	(378)	ND	(536)
Pentachlorobenzene	ND	(329)	ND	(378)	ND	(536)
Pentachloroethane	ND	(329)	ND	(378)	ND	(536)
Pentachloronitrobenzene	ND	(329)	ND	(378)	ND	(536)
Pentachlorophenol	ND	(329)	ND	(378)	ND	(536)
Phenactin	ND	(329)	ND	(378)	ND	(536)
Phenanthrene	ND	(329)	ND	(378)	ND	(536)
Phenol	ND	(329)	ND	(378)	ND	(536)
Pronamide	ND	(329)	ND	(378)	ND	(536)
Pyrene	ND	(329)	ND	(378)	ND	(536)
Pyridine	ND	(329)	ND	(378)	ND	(536)
Safrole	ND	(329)	ND	(378)	ND	(536)
bis(2-Chloroethoxy)methane	ND	(329)	ND	(378)	ND	(536)
bis(2-Chloroethyl)ether	ND	(329)	ND	(378)	ND	(536)
bis(2-Chloroisopropyl)ether	ND	(329)	ND	(378)	ND	(536)
bis(2-Ethylhexyl)phthalate	ND	(329)	20413.8	(378)	12930.3	(536)
n-Nitroso-di-n-butylamine	ND	(329)	ND	(378)	ND	(536)
n-Nitroso-di-n-propylamine	ND	(329)	ND	(378)	ND	(536)
n-Nitrosodiethylamine	ND	(329)	ND	(378)	ND	(536)
n-Nitrosodimethylamine	ND	(329)	ND	(378)	ND	(536)
n-Nitrosodiphenylamine	ND	(329)	ND	(378)	ND	(536)
n-Nitrosomethylethylamine	ND	(329)	ND	(378)	ND	(536)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A1 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID					
	LOCATION ID					
	SAMPLE ID					
	LS		DT		LS	
	LS-01		DT-01		LS-01	
PARAMETER	9303-GLS-01-01		9303-IDT-01-01		9303-NLS-01-01	
n-Nitrosomorpholine	ND	(329)	ND	(378)	ND	(536)
n-Nitrosopiperidine	ND	(329)	ND	(378)	ND	(536)
n-Nitrosopyrrolidine	ND	(329)	ND	(378)	ND	(536)
o-Toluidine	ND	(329)	ND	(378)	ND	(536)
p-Dimethylaminoazobenzene	ND	(329)	ND	(378)	ND	(536)
SW8290 - Dioxins and Furans (pg/g)						
1,2,3,4,6,7,8-HpCDD	ND	(0.33)	ND	(0.71)	ND	(0.563)
1,2,3,4,6,7,8-HpCDF	0.62	(0.32)	ND	(0.56)	1.24	(0.425)
1,2,3,4,7,8,9-HpCDF	ND	(0.44)	ND	(0.82)	ND	(0.64)
1,2,3,4,7,8-HxCDD	ND	(0.75)	ND	(0.82)	0.24 J	(0.522)
1,2,3,4,7,8-HxCDF	ND	(0.47)	ND	(0.54)	ND	(0.648)
1,2,3,6,7,8-HxCDD	ND	(0.79)	ND	(0.85)	ND	(0.541)
1,2,3,6,7,8-HxCDF	0.42	(0.23)	ND	(0.66)	ND	(0.44)
1,2,3,7,8,9-HxCDD	ND	(0.34)	ND	(0.84)	ND	(0.531)
1,2,3,7,8,9-HxCDF	ND	(0.25)	ND	(0.56)	ND	(0.477)
1,2,3,7,8-PeCDD	ND	(0.43)	ND	(1.01)	ND	(0.809)
1,2,3,7,8-PeCDF	ND	(0.51)	ND	(0.71)	ND	(0.815)
2,3,4,6,7,8-HxCDF	ND	(0.31)	ND	(0.89)	ND	(0.861)
2,3,4,7,8-PeCDF	ND	(0.52)	ND	(1.09)	ND	(0.9)
2,3,7,8-TCDD	ND	(0.11)	ND	(0.18)	ND	(0.188)
2,3,7,8-TCDF	ND	(0.36)	ND	(0.77)	ND	(0.797)
OCDD	ND	(0.76)	8.81	(1.06)	3.98	(1.267)
OCDF	ND	(0.53)	ND	(2.05)	1.52	(1.361)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A2 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-1			C C-01 9307-10			A A-01 9307-11			G G-01 9307-12		
E249.2 - Nickel (mg/Kg)												
Nickel	0.6		(0.185)	0.08	J	(0.184)	0.29		(0.19)	0.07	J	(0.192)
E272.2 - Silver (mg/Kg)												
Silver	0.19		(0.038)	0.96		(0.038)	2.66		(0.039)	0.21		(0.039)
SOP-9202 - Metals By DCP (mg/Kg)												
Barium	4.2		(0.054)	0.36		(0.054)	9.73		(0.056)	ND		(0.056)
Manganese	2.15	J	(2.179)	9.59		(2.159)	40.87		(2.239)	ND		(2.255)
SW7040 - Antimony (mg/Kg)												
Antimony	ND		(0.272)	ND		(0.27)	ND		(0.28)	ND		(0.282)
SW7060 - Arsenic (mg/Kg)												
Arsenic	0.18	J	(0.185)	ND		(0.184)	0.4		(0.19)	0.02	J	(0.192)
SW7131 - Cadmium (mg/Kg)												
Cadmium	0.02		(0.011)	0.04		(0.011)	0.07		(0.011)	0.05		(0.011)
SW7191 - Chromium (mg/Kg)												
Chromium	1.71		(0.131)	0.05	J	(0.13)	1.12		(0.134)	0.14		(0.135)
SW7421 - Lead (mg/Kg)												
Lead	0.19		(0.131)	0.04	J	(0.13)	0.57		(0.134)	0.06	J	(0.135)
SW7450 - Magnesium (mg/Kg)												
Magnesium	1049		(0.9)	1074		(0.9)	4547		(0.9)	1239		(0.9)
SW7471 - Mercury (mg/Kg)												
Mercury	0.011	J	(0.0327)	0.013	J	(0.0324)	0.025	J	(0.0336)	0.067		(0.0338)
SW7740 - Selenium (mg/Kg)												
Selenium	2.3		(0.534)	1.56		(0.529)	1.43		(0.549)	2.64		(0.553)
SW7841 - Thallium (mg/Kg)												
Thallium	ND		(0.436)	0.03	J	(0.432)	0.04	J	(0.448)	0.02	J	(0.451)
SW846 - Percent Moisture (%)												
Percent Moisture	82.9		(NA)	70.9		(NA)	85.1		(NA)	75.6		(NA)

Compiled: 11 April 1995 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A2 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-13			G G-01 9307-14			G G-01 9307-15			G G-01 9307-16		
E249.2 - Nickel (mg/Kg)												
Nickel	0.04	J	(0.172)	0.15	J	(0.19)	0.28		(0.183)	0.04	J	(0.175)
E272.2 - Silver (mg/Kg)												
Silver	0.19		(0.035)	3.52		(0.039)	0.66		(0.038)	0.07		(0.036)
SOP-9202 - Metals By DCP (mg/Kg)												
Barium	ND		(0.051)	0.02	J	(0.056)	0.13		(0.054)	3.16		(0.051)
Manganese	ND		(2.023)	7.71		(2.233)	1.06		(2.155)	1.01		(2.056)
SW7040 - Antimony (mg/Kg)												
Antimony	0.05	J	(0.253)	0.08	J	(0.279)	0.16	J	(0.269)	0.15	J	(0.257)
SW7060 - Arsenic (mg/Kg)												
Arsenic	ND		(0.172)	4.53		(0.19)	ND		(0.183)	ND		(0.175)
SW7131 - Cadmium (mg/Kg)												
Cadmium	0.05		(0.01)	3.11		(0.011)	0.01	J	(0.011)	0.01	J	(0.01)
SW7191 - Chromium (mg/Kg)												
Chromium	0.05	J	(0.121)	0.32		(0.134)	0.64		(0.129)	0.36		(0.123)
SW7421 - Lead (mg/Kg)												
Lead	0.05	J	(0.121)	0.09	J	(0.134)	0.04	J	(0.129)	0.12	J	(0.123)
SW7450 - Magnesium (mg/Kg)												
Magnesium	1027		(0.8)	701		(0.9)	429		(0.9)	882		(0.8)
SW7471 - Mercury (mg/Kg)												
Mercury	0.063		(0.0303)	0.2		(0.0335)	0.01	J	(0.0323)	0.009	J	(0.0308)
SW7740 - Selenium (mg/Kg)												
Selenium	2.94		(0.496)	6.6		(0.547)	2.28		(0.528)	1.12		(0.504)
SW7841 - Thallium (mg/Kg)												
Thallium	0.08	J	(0.405)	0.05	J	(0.447)	ND		(0.431)	ND		(0.411)
SW846 - Percent Moisture (%)												
Percent Moisture	75.8		(NA)	71.6		(NA)	66.7		(NA)	76.4		(NA)

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TABLE A2 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-17		G G-01 9307-2		G G-01 9307-3		G G-01 9307-4	
E249.2 - Nickel (mg/Kg)								
Nickel	ND	(0.178)	0.18	(0.183)	1.73	(0.185)	0.95	(0.162)
E272.2 - Silver (mg/Kg)								
Silver	0.06	(0.037)	0.18	(0.038)	0.15	(0.038)	0.19	(0.033)
SOP-9202 - Metals By DCP (mg/Kg)								
Barium	28.62	(0.052)	3.68	(0.054)	3.8	(0.054)	2.81	(0.048)
Manganese	6.19	(2.091)	2.12 J	(2.151)	3.22	(2.173)	2.83	(1.912)
SW7040 - Antimony (mg/Kg)								
Antimony	ND	(0.261)	ND	(0.269)	ND	(0.272)	ND	(0.239)
SW7060 - Arsenic (mg/Kg)								
Arsenic	ND	(0.178)	ND	(0.183)	ND	(NA)	ND	(0.162)
SW7131 - Cadmium (mg/Kg)								
Cadmium	0.03	(0.01)	0.01	(0.011)	0.02 J	(0.011)	0.02	(0.01)
SW7191 - Chromium (mg/Kg)								
Chromium	0.25	(0.125)	0.67	(0.129)	3.2	(0.13)	1.48	(0.115)
SW7421 - Lead (mg/Kg)								
Lead	13.37	(0.125)	0.23	(0.129)	1.04	(0.13)	0.2	(0.115)
SW7450 - Magnesium (mg/Kg)								
Magnesium	1767	(0.8)	1086	(0.9)	1001	(0.9)	1061	(0.8)
SW7471 - Mercury (mg/Kg)								
Mercury	0.045	(0.0314)	0.006 J	(0.0323)	0.006 J	(0.0326)	0.005 J	(0.0287)
SW7740 - Selenium (mg/Kg)								
Selenium	1.35	(0.512)	2.19	(0.527)	1.86	(0.532)	1.8	(0.468)
SW7841 - Thallium (mg/Kg)								
Thallium	ND	(0.418)	ND	(0.43)	ND	(0.435)	ND	(0.382)
SW846 - Percent Moisture (%)								
Percent Moisture	63.6	(NA)	81	(NA)	81.1	(NA)	78.8	(NA)

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TABLE A2 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-5			G G-01 9307-6			C C-01 9307-7			C C-01 9307-8		
E249.2 - Nickel (mg/Kg)												
Nickel	0.09	J	(0.185)	0.05	J	(0.174)	0.61		(0.182)	0.09	J	(0.182)
E272.2 - Silver (mg/Kg)												
Silver	1.04		(0.038)	0.22		(0.036)	0.52		(0.037)	0.51		(0.038)
SOP-9202 - Metals By DCP (mg/Kg)												
Barium	0.63		(0.054)	1.86		(0.051)	2.64		(0.054)	1.41		(0.054)
Manganese	20.39		(2.175)	12.11		(2.046)	3.17		(2.141)	2.12	J	(2.147)
SW7040 - Antimony (mg/Kg)												
Antimony	ND		(0.272)	ND		(0.256)	ND		(0.268)	ND		(0.268)
SW7060 - Arsenic (mg/Kg)												
Arsenic	0.21		(0.185)	0.16	J	(0.174)	0.01	J	(0.182)	ND		(0.182)
SW7131 - Cadmium (mg/Kg)												
Cadmium	0.1		(0.011)	0.01	J	(0.01)	0.02		(0.011)	0.01	J	(0.011)
SW7191 - Chromium (mg/Kg)												
Chromium	0.08		(0.131)	0.12		(0.123)	0.35		(0.128)	0.38		(0.129)
SW7421 - Lead (mg/Kg)												
Lead	0.02	J	(0.131)	0.1	J	(0.123)	0.42		(0.128)	0.15		(0.129)
SW7450 - Magnesium (mg/Kg)												
Magnesium	1213		(0.9)	1840		(0.8)	1278		(0.9)	1219		(0.9)
SW7471 - Mercury (mg/Kg)												
Mercury	0.006	J	(0.0326)	0.016	J	(0.0307)	0.059		(0.0321)	0.067		(0.0322)
SW7740 - Selenium (mg/Kg)												
Selenium	1.74		(0.533)	3.34		(0.501)	2.19		(0.525)	2.23		(0.526)
SW7841 - Thallium (mg/Kg)												
Thallium	0.1	J	(0.435)	0.05	J	(0.409)	0.02	J	(0.428)	0.03	J	(0.429)
SW846 - Percent Moisture (%)												
Percent Moisture	74.5		(NA)	78.3		(NA)	78.7		(NA)	79.1		(NA)

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TABLE A2 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID C C-01 9307-9		
E249.2 - Nickel (mg/Kg)			
Nickel	0.16	J	(0.171)
E272.2 - Silver (mg/Kg)			
Silver	0.47		(0.035)
SOP-9202 - Metals By DCP (mg/Kg)			
Barium	1.46		(0.05)
Manganese	1.99	J	(2.012)
SW7040 - Antimony (mg/Kg)			
Antimony	ND		(0.252)
SW7060 - Arsenic (mg/Kg)			
Arsenic	0.04	J	(0.171)
SW7131 - Cadmium (mg/Kg)			
Cadmium	0.12		(0.01)
SW7191 - Chromium (mg/Kg)			
Chromium	0.32		(0.121)
SW7421 - Lead (mg/Kg)			
Lead	0.27		(0.121)
SW7450 - Magnesium (mg/Kg)			
Magnesium	1285		(0.8)
SW7471 - Mercury (mg/Kg)			
Mercury	0.089		(0.0302)
SW7740 - Selenium (mg/Kg)			
Selenium	2.99		(0.493)
SW7841 - Thallium (mg/Kg)			
Thallium	0.04	J	(0.402)
SW846 - Percent Moisture (%)			
Percent Moisture	78.2		(NA)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-1			C C-01 9307-10			A A-01 9307-11			G G-01 9307-12		
SOP-9017 - Chlorinated Pesticides and PCBs (ng/g)												
2,4'-DDD	0.33	J	(3.47)	0.07	J	(0.89)	0.87	J	(1.41)	ND		(2.59)
2,4'-DDE	ND		(1.6)	ND		(0.41)	ND		(0.65)	11.92		(1.19)
2,4'-DDT	ND		(2.53)	ND		(0.65)	1.43		(1.03)	ND		(1.89)
4,4'-DDD	19.71		(2.08)	1.97		(0.53)	3.99		(0.84)	13.97		(1.55)
4,4'-DDE	8.78		(4.09)	1.19		(1.05)	9.36		(1.66)	86.92		(3.05)
4,4'-DDT	ND		(2.05)	ND		(0.52)	ND		(0.83)	ND		(1.53)
Aldrin	ND		(2.65)	ND		(0.68)	ND		(1.08)	ND		(1.98)
Dieldrin	0.07	J	(3.59)	ND		(0.92)	ND		(1.46)	1.21	J	(2.67)
Endrin	0.2	J	(2.64)	ND		(0.67)	ND		(1.07)	1.21	J	(1.97)
HCB	0.72	J	(2.9)	0.27	J	(0.74)	0.69	J	(1.18)	0.65	J	(2.16)
Heptachlor	0.13	J	(2.78)	0.03	J	(0.71)	ND		(1.13)	0.14	J	(2.07)
Heptachlor epoxide	ND		(3.1)	ND		(0.79)	ND		(1.26)	ND		(2.31)
Mirex	ND		(2.94)	ND		(0.75)	ND		(1.19)	ND		(2.19)
Oxychlordane	2.95	J	(3.85)	1.26		(0.98)	3.18		(1.56)	18.53		(2.87)
Total BHCs	7.86		(7.49)	3.29		(1.92)	1.37	J	(3.04)	ND		(5.58)
Total Chlordanes	3.08	J	(7.7)	1.9	J	(1.97)	5.93		(3.13)	22.86		(5.74)
Total DDTs	28.81		(5.27)	3.22		(1.35)	15.66		(2.14)	112.8		(3.93)
Total Decachlorobiphenyls	0.13	J	(3.17)	ND		(0.81)	ND		(1.29)	ND		(2.36)
Total Dichlorobiphenyls	0.2	J	(9.07)	2.55		(2.32)	0.37	J	(3.69)	ND		(6.76)
Total Heptachlorobiphenyls	9.1		(3.87)	8.49		(0.99)	42.61		(1.57)	19.65		(2.88)
Total Hexachlorobiphenyls	15.32		(4.33)	10.15		(1.11)	134.81		(1.76)	51.02		(3.22)
Total Nonachlorobiphenyls	ND		(6.39)	ND		(1.63)	ND		(2.6)	0.42	J	(4.76)
Total Octachlorobiphenyls	1.44	J	(9.58)	0.24	J	(2.45)	2.43	J	(3.89)	8.05		(7.14)
Total PCBs	34.2		(7.23)	47.5		(1.85)	116.1		(2.94)	5.3	J	(5.38)
Total Pentachlorobiphenyls	13.1		(5.54)	25.76		(1.42)	306.86		(2.25)	59.92		(4.13)
Total Tetrachlorobiphenyls	16.57		(2.61)	25.59		(0.67)	88.27		(1.06)	9.64		(1.94)
Total Trichlorobiphenyls	3.6	J	(5.65)	1.39	J	(1.44)	1.25	J	(2.29)	0.65	J	(4.21)
Toxaphene	ND		(16.74)	ND		(4.28)	ND		(6.8)	ND		(12.47)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-1			C C-01 9307-10			A A-01 9307-11			G G-01 9307-12		
alpha-BHC	5.04		(2.82)	ND		(0.72)	ND		(1.15)	ND		(2.1)
alpha-Chlordane	ND		(4.07)	ND		(1.04)	ND		(1.65)	ND		(3.03)
beta-BHC	ND		(7.35)	0.07	J	(1.88)	ND		(2.99)	ND		(5.48)
cis-Nonachlor	ND		(1.17)	0.51		(0.3)	1.43		(0.48)	ND		(0.87)
delta-BHC	2.82	J	(3.02)	1.05		(0.77)	0.19	J	(1.23)	ND		(2.25)
gamma-BHC	ND		(1.79)	2.17		(0.46)	1.19		(0.73)	ND		(1.33)
gamma-Chlordane	ND		(1.94)	0.1	J	(0.49)	1.31		(0.79)	3.82		(1.44)
trans-Nonachlor	ND		(10.05)	ND		(2.57)	ND		(4.08)	0.37	J	(7.49)
SW8270 - Semivolatile Organics (ppb)												
1,2,4,5-Tetrachlorobenzene	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
1,2,4-Trichlorobenzene	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
1,2-Dichlorobenzene	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
1,3,-Dichlorobenzene	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
1,3-Dinitrobenzene	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
1,4,-Phenylenediamine (2)	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
1,4-Dichlorobenzene	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
1,4-Naphthoquinone	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
1-Naphthylamine	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
2,3,4,6-Tetrachlorophenol	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
2,4,5-Trichlorophenol	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
2,4,6-Trichlorophenol	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
2,4-Dichlorophenol	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
2,4-Dimethylphenol	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
2,4-Dinitrophenol	ND		(2525)	ND		(670)	ND		(1239)	ND		(3745)
2,4-Dinitrotoluene	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
2,6-Dichlorophenol	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
2,6-Dinitrotoluene	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
2-Acetylaminofluorene	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)
2-Chloronaphthalene	ND		(1263)	ND		(335)	ND		(620)	ND		(1873)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-1		C C-01 9307-10		A A-01 9307-11		G G-01 9307-12	
2-Chlorophenol	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
2-Methylnaphthalene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
2-Methylphenol	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
2-Naphthylamine	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
2-Nitroaniline	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
2-Nitrophenol	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
2-Picoline	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
3,3'-Dichlorobenzidine	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
3,3'-Dimethoxybenzidine	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
3-Methylchloanthrene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
3-Methylphenol (2)	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
3-Nitroaniline	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
4,6,-Dinitro-2-methylphenol	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
4-Aminobiphenyl	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
4-Bromophenyl-phenylether	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
4-Chloro-3-methylphenol	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
4-Chloroaniline	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
4-Chlorophenyl-phenylether	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
4-Methylphenol	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
4-Nitroaniline	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
4-Nitrophenol	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
4-Nitroquinoline-1-oxide	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
5-Nitro-o-toluidine	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
7,12-Dimethylbenz(a)anthracene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Acenaphthene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Acenaphthylene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Acetophenone	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Aniline	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Anthracene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-1		C C-01 9307-10		A A-01 9307-11		G G-01 9307-12	
Aramite (peak 2) 2	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Aramite (peak1) 2	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Benzo(a)anthracene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Benzo(a)pyrene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Benzo(b)fluoranthene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Benzo(g,h,i)perylene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Benzo(k)fluoranthene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Benzyl alcohol	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Bis(2-Ethylhexyl)phthalate	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Butylbenzylphthalate	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Chlorobenzilate	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Chrysene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Di-n-butylphthalate	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Di-n-octylphthalate	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Diallate (peak 1) (2)	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Diallate (peak 2) 2	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Dibenz(a,h)anthracene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Dibenzofuran	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Diethylphthalate	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Dimethylphenethyamine	ND	(15152)	ND	(4019)	ND	(7435)	ND	(22472)
Dimethylphthalate	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Diphenylamine	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Ethylmethansulfonate (2)	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Fluoranthene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Fluorene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Hexachlorobenzene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Hexachlorobutadiene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Hexachlorocyclopentadiene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Hexachloroethane	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-1		C C-01 9307-10		A A-01 9307-11		G G-01 9307-12	
Hexachlorophene (2)	ND	(256313)	ND	(67984)	ND	(125774)	ND	(380150)
Hexachloropropene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Indeno(1,2,3-cd)pyrene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Isophorone	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Isosafrole	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Methapyrilene (2)	ND	(6313)	ND	(1674)	ND	(3098)	ND	(9363)
Methylmethansulfonate (2)	ND	(6313)	ND	(1674)	ND	(3098)	ND	(9363)
N-Nitrosodiphenylamine	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Naphthalene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Nitrobenzene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Pentachlorobenzene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Pentachloroethane (2)	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Pentachloronitrobenzene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Pentachlorophenol	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Phenactin	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Phenanthrene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Phenol	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Pronamide	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Pyrene	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Pyridine (2)	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
Safrole (2)	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
bis(2-Chloroethoxy)methane	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
bis(2-Chloroethyl)ether	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
bis(2-Chloroisopropyl)ether	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
n-Nitroso-di-n-butylamine	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
n-Nitroso-di-n-propylamine	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
n-Nitrosodiethylamine	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
n-Nitrosodimethylamine	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)
n-Nitrosomethylethylamine	ND	(1263)	ND	(335)	ND	(620)	ND	(1873)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-1			C C-01 9307-10			A A-01 9307-11			G G-01 9307-12	
n-Nitrosomorpholine	ND		(1263)	ND		(335)	ND		(620)	ND	(1873)
n-Nitrosopiperidine	ND		(1263)	ND		(335)	ND		(620)	ND	(1873)
n-Nitrosopyrrolidine	ND		(1263)	ND		(335)	ND		(620)	ND	(1873)
o-Toluidine	ND		(1263)	ND		(335)	ND		(620)	ND	(1873)
p-Dimethylaminoazobenzene	ND		(1263)	ND		(335)	ND		(620)	ND	(1873)
SW8290 - Dioxins and Furans (pg/g)											
1,2,3,4,6,7,8-HpCDD	57.27	J	(71.8)	ND		(16.6)	ND		(30.1)	ND	(108.4)
1,2,3,4,6,7,8-HpCDF	27.44	J	(71.8)	ND		(16.6)	ND		(30.1)	ND	(108.4)
1,2,3,4,7,8,9-HpCDF	66.41	J	(71.8)	ND		(16.6)	ND		(30.1)	ND	(108.4)
1,2,3,4,7,8-HxCDD	68.73	J	(71.8)	ND		(16.6)	ND		(30.1)	ND	(108.4)
1,2,3,4,7,8-HxCDF	26.33	J	(71.8)	ND		(16.6)	ND		(30.1)	ND	(108.4)
1,2,3,6,7,8-HxCDD	45.86	J	(71.8)	ND		(16.6)	ND		(30.1)	ND	(108.4)
1,2,3,6,7,8-HxCDF	28.33	J	(71.8)	ND		(16.6)	ND		(30.1)	ND	(108.4)
1,2,3,7,8,9-HxCDD	116.45		(71.8)	ND		(16.6)	ND		(30.1)	ND	(108.4)
1,2,3,7,8,9-HxCDF	85.08		(71.8)	24.76		(16.6)	ND		(30.1)	ND	(108.4)
1,2,3,7,8-PeCDD	72.49		(71.8)	ND		(16.6)	ND		(30.1)	ND	(108.4)
1,2,3,7,8-PeCDF	53.8	J	(71.8)	12.49	J	(16.6)	20.14	J	(30.1)	ND	(108.4)
2,3,4,6,7,8-HxCDF	150.26		(71.8)	ND		(16.6)	ND		(30.1)	ND	(108.4)
2,3,4,7,8-PeCDF	88.64		(71.8)	ND		(16.6)	ND		(30.1)	ND	(108.4)
2,3,7,8-TCDD	30.86		(28.7)	ND		(6.6)	10.58	J	(12)	ND	(43.3)
2,3,7,8-TCDF	15.05	J	(28.7)	ND		(6.6)	ND		(12)	ND	(43.3)
OCDD	225.89		(143.6)	ND		(33.2)	ND		(60.2)	NA	
OCDF	ND		(143.6)	ND		(33.2)	ND		(60.2)	ND	(216.7)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-13			G G-01 9307-14			G G-01 9307-15			G G-01 9307-16		
SOP-9017 - Chlorinated Pesticides and PCBs (ng/g)												
2,4'-DDD	ND		(2.02)	0.32	J	(2.03)	1.49	J	(1.7)	0.79	J	(2.03)
2,4'-DDE	ND		(0.93)	0.07	J	(0.93)	5.39		(0.78)	7.24		(0.93)
2,4'-DDT	ND		(1.47)	ND		(1.48)	ND		(1.24)	ND		(1.48)
4,4'-DDD	ND		(1.21)	2.69		(1.21)	15.7		(1.02)	5.88		(1.21)
4,4'-DDE	74.62		(2.38)	121.63		(2.39)	15.09		(2)	12.51		(2.39)
4,4'-DDT	0.28	J	(1.19)	ND		(1.2)	0.21	J	(1)	0.13	J	(1.2)
Aldrin	ND		(1.54)	ND		(1.55)	ND		(1.3)	ND		(1.55)
Dieldrin	1.16	J	(2.09)	ND		(2.1)	ND		(1.75)	ND		(2.09)
Endrin	ND		(1.53)	2.61		(1.54)	ND		(1.29)	ND		(1.54)
HCB	0.6	J	(1.69)	4.87		(1.7)	0.46	J	(1.42)	0.48	J	(1.7)
Heptachlor	0.2	J	(1.62)	0.18	J	(1.63)	0.15	J	(1.36)	ND		(1.63)
Heptachlor epoxide	ND		(1.8)	ND		(1.81)	ND		(1.52)	ND		(1.81)
Mirex	ND		(1.71)	ND		(1.72)	0.06	J	(1.44)	ND		(1.72)
Oxychlordane	16.77		(2.24)	139.22		(2.25)	2.04		(1.88)	1.71	J	(2.25)
Total BHCs	ND		(4.36)	37.89		(4.38)	2.83	J	(3.67)	7.33		(4.38)
Total Chlordanes	20.76		(4.48)	152.29		(4.5)	7.46		(3.77)	5.62		(4.5)
Total DDTs	74.9		(3.07)	124.71		(3.08)	37.89		(2.58)	26.55		(3.08)
Total Decachlorobiphenyls	ND		(1.85)	ND		(1.86)	ND		(1.55)	ND		(1.85)
Total Dichlorobiphenyls	0.24	J	(5.28)	12.97		(5.3)	2.77	J	(4.44)	2.5	J	(5.3)
Total Heptachlorobiphenyls	18.13		(2.25)	27.26		(2.26)	14.88		(1.89)	2.59		(2.26)
Total Hexachlorobiphenyls	47.09		(2.52)	68.34		(2.53)	13.94		(2.12)	6.54		(2.53)
Total Nonachlorobiphenyls	1	J	(3.72)	0.57	J	(3.74)	ND		(3.13)	ND		(3.73)
Total Octachlorobiphenyls	8.05		(5.57)	7.06		(5.6)	1.19	J	(4.69)	ND		(5.6)
Total PCBs	6		(4.2)	57.8		(4.22)	36.5		(3.54)	27.2		(4.22)
Total Pentachlorobiphenyls	45.98		(3.22)	76.4		(3.24)	21.36		(2.71)	28.83		(3.24)
Total Tetrachlorobiphenyls	6.1		(1.52)	27.9		(1.52)	16.37		(1.28)	9.08		(1.52)
Total Trichlorobiphenyls	0.4	J	(3.28)	11.86		(3.3)	2.5	J	(2.76)	3.73		(3.3)
Toxaphene	ND		(9.73)	ND		(9.78)	ND		(8.19)	ND		(9.78)

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PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-13			G G-01 9307-14			G G-01 9307-15			G G-01 9307-16		
alpha-BHC	ND		(1.64)	ND		(1.65)	ND		(1.38)	6.14		(1.65)
alpha-Chlordane	ND		(2.37)	10.28		(2.38)	0.52	J	(1.99)	ND		(2.38)
beta-BHC	ND		(4.27)	18.88		(4.29)	1.13	J	(3.6)	0.31	J	(4.29)
cis-Nonachlor	ND		(0.68)	0.79		(0.69)	0.27	J	(0.57)	0.31	J	(0.69)
delta-BHC	ND		(1.76)	ND		(1.77)	ND		(1.48)	ND		(1.77)
gamma-BHC	ND		(1.04)	19.02		(1.05)	1.7		(0.88)	0.88	J	(1.05)
gamma-Chlordane	3.35		(1.13)	ND		(1.13)	4.32		(0.95)	3.33		(1.13)
trans-Nonachlor	0.44	J	(5.84)	1.83	J	(5.87)	0.15	J	(4.92)	0.26	J	(5.87)
SW8270 - Semivolatile Organics (ppb)												
1,2,4,5-Tetrachlorobenzene	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
1,2,4-Trichlorobenzene	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
1,2-Dichlorobenzene	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
1,3,-Dichlorobenzene	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
1,3-Dinitrobenzene	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
1,4,-Phenylenediamine (2)	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
1,4-Dichlorobenzene	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
1,4-Naphthoquinone	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
1-Naphthylamine	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
2,3,4,6-Tetrachlorophenol	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
2,4,5-Trichlorophenol	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
2,4,6-Trichlorophenol	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
2,4-Dichlorophenol	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
2,4-Dimethylphenol	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
2,4-Dinitrophenol	ND		(3086)	ND		(2890)	ND		(1965)	ND		(2179)
2,4-Dinitrotoluene	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
2,6-Dichlorophenol	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
2,6-Dinitrotoluene	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
2-Acetylaminofluorene	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
2-Chloronaphthalene	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)

Compiled: 11 April 1995 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
PARAMETER	G G-01 9307-13		G G-01 9307-14		G G-01 9307-15		G G-01 9307-16	
2-Chlorophenol	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
2-Methylnaphthalene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
2-Methylphenol	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
2-Naphthylamine	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
2-Nitroaniline	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
2-Nitrophenol	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
2-Picoline	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
3,3'-Dichlorobenzidine	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
3,3'-Dimethoxybenzidine	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
3-Methylchloanthrene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
3-Methylphenol (2)	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
3-Nitroaniline	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
4,6,-Dinitro-2-methylphenol	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
4-Aminobiphenyl	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
4-Bromophenyl-phenylether	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
4-Chloro-3-methylphenol	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
4-Chloroaniline	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
4-Chlorophenyl-phenylether	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
4-Methylphenol	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
4-Nitroaniline	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
4-Nitrophenol	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
4-Nitroquinoline-1-oxide	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
5-Nitro-o-toluidine	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
7,12-Dimethylbenz(a)anthracene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Acenaphthene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Acenaphthylene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Acetophenone	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Aniline	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Anthracene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-13		G G-01 9307-14		G G-01 9307-15		G G-01 9307-16	
Aramite (peak 2) 2	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Aramite (peak1) 2	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Benzo(a)anthracene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Benzo(a)pyrene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Benzo(b)fluoranthene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Benzo(g,h,i)perylene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Benzo(k)fluoranthene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Benzyl alcohol	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Bis(2-Ethylhexyl)phthalate	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Butylbenzylphthalate	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Chlorobenzilate	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Chrysene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Di-n-butylphthalate	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Di-n-octylphthalate	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Diallate (peak 1) (2)	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Diallate (peak 2) 2	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Dibenz(a,h)anthracene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Dibenzofuran	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Diethylphthalate	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Dimethylphenethyamine	ND	(18519)	ND	(17341)	ND	(11788)	ND	(13072)
Dimethylphthalate	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Diphenylamine	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Ethylmethansulfonate (2)	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Fluoranthene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Fluorene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Hexachlorobenzene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Hexachlorobutadiene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Hexachlorocyclopentadiene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Hexachloroethane	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-13		G G-01 9307-14		G G-01 9307-15		G G-01 9307-16	
Hexachlorophene (2)	ND	(313272)	ND	(293353)	ND	(199411)	ND	(221133)
Hexachloropropene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Indeno(1,2,3-cd)pyrene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Isophorone	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Isosafrole	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Methapyrilene (2)	ND	(7716)	ND	(7225)	ND	(4912)	ND	(5447)
Methylmethansulfonate (2)	ND	(7716)	ND	(7225)	ND	(4912)	ND	(5447)
N-Nitrosodiphenylamine	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Naphthalene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Nitrobenzene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Pentachlorobenzene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Pentachloroethane (2)	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Pentachloronitrobenzene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Pentachlorophenol	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Phenactin	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Phenanthrene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Phenol	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Pronamide	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Pyrene	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Pyridine (2)	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
Safrole (2)	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
bis(2-Chloroethoxy)methane	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
bis(2-Chloroethyl)ether	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
bis(2-Chloroisopropyl)ether	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
n-Nitroso-di-n-butylamine	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
n-Nitroso-di-n-propylamine	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
n-Nitrosodiethylamine	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
n-Nitrosodimethylamine	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)
n-Nitrosomethylethylamine	ND	(1543)	ND	(1445)	ND	(982)	ND	(1089)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-13			G G-01 9307-14			G G-01 9307-15			G G-01 9307-16		
n-Nitrosomorpholine	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
n-Nitrosopiperidine	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
n-Nitrosopyrrolidine	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
o-Toluidine	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
p-Dimethylaminoazobenzene	ND		(1543)	ND		(1445)	ND		(982)	ND		(1089)
SW8290 - Dioxins and Furans (pg/g)												
1,2,3,4,6,7,8-HpCDD	ND		(114.1)	ND		(155.9)	ND		(129)	ND		(94.2)
1,2,3,4,6,7,8-HpCDF	ND		(57)	ND		(77.9)	ND		(64.5)	ND		(47.1)
1,2,3,4,7,8,9-HpCDF	ND		(57)	ND		(77.9)	ND		(64.5)	ND		(47.1)
1,2,3,4,7,8-HxCDD	ND		(57)	ND		(77.9)	ND		(64.5)	ND		(47.1)
1,2,3,4,7,8-HxCDF	ND		(57)	ND		(77.9)	ND		(64.5)	ND		(47.1)
1,2,3,6,7,8-HxCDD	ND		(57)	ND		(77.9)	ND		(64.5)	ND		(47.1)
1,2,3,6,7,8-HxCDF	ND		(57)	ND		(77.9)	ND		(64.5)	ND		(47.1)
1,2,3,7,8,9-HxCDD	ND		(57)	ND		(77.9)	ND		(64.5)	ND		(47.1)
1,2,3,7,8,9-HxCDF	ND		(57)	ND		(77.9)	ND		(64.5)	ND		(47.1)
1,2,3,7,8-PeCDD	ND		(57)	ND		(77.9)	ND		(64.5)	ND		(47.1)
1,2,3,7,8-PeCDF	ND		(57)	85		(77.9)	39.05	J	(64.5)	24.3	J	(47.1)
2,3,4,6,7,8-HxCDF	ND		(57)	ND		(77.9)	ND		(64.5)	ND		(47.1)
2,3,4,7,8-PeCDF	ND		(57)	ND		(77.9)	ND		(64.5)	ND		(47.1)
2,3,7,8-TCDD	ND		(22.8)	ND		(31.2)	ND		(25.8)	ND		(18.8)
2,3,7,8-TCDF	ND		(22.8)	ND		(31.2)	ND		(25.8)	ND		(18.8)
OCDF	ND		(114.1)	ND		(155.9)	ND		(129)	ND		(94.2)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID							
	LOCATION ID							
	SAMPLE ID							
PARAMETER	G G-01 9307-17		G G-01 9307-2		G G-01 9307-3		G G-01 9307-4	
SOP-9017 - Chlorinated Pesticides and PCBs (ng/g)								
2,4'-DDD	ND	(1.4)	0.29 J	(2.82)	1.55 J	(2.62)	1.25 J	(2.22)
2,4'-DDE	ND	(0.64)	6.8	(1.3)	6.11	(1.21)	ND	(1.02)
2,4'-DDT	2.2	(1.02)	ND	(2.06)	4.35	(1.91)	0.37 J	(1.62)
4,4'-DDD	8.92	(0.84)	ND	(1.69)	15.54	(1.57)	ND	(1.33)
4,4'-DDE	513.32	(1.65)	6.62	(3.32)	13.36	(3.09)	20.81	(2.62)
4,4'-DDT	2.57	(0.83)	ND	(1.67)	0.78 J	(1.55)	3.57	(1.31)
Aldrin	ND	(1.07)	ND	(2.16)	0.47 J	(2.01)	0.56 J	(1.7)
Dieldrin	6.45	(1.45)	0.12 J	(2.91)	ND	(2.71)	8.71	(2.29)
Endrin	ND	(1.07)	0.35 J	(2.14)	0.26 J	(2)	2.13	(1.69)
HCB	1.17	(1.17)	0.58 J	(2.36)	0.52 J	(2.2)	0.46 J	(1.86)
Heptachlor	ND	(1.12)	0.06 J	(2.26)	0.1 J	(2.11)	0.09 J	(1.78)
Heptachlor epoxide	ND	(1.25)	ND	(2.52)	ND	(2.34)	ND	(1.98)
Mirex	0.1 J	(1.19)	ND	(2.39)	ND	(2.22)	0.09 J	(1.88)
Oxychlordane	63.14	(1.55)	2.53 J	(3.13)	2.12 J	(2.91)	1.67 J	(2.46)
Total BHCs	0.8 J	(3.03)	6.57 J	(6.09)	7.04	(5.66)	1.76 J	(4.8)
Total Chlordanes	64.62	(3.11)	2.59 J	(6.26)	5.9	(5.82)	7.83	(4.93)
Total DDTs	527.01	(2.13)	13.71	(4.28)	41.69	(3.98)	26	(3.37)
Total Decachlorobiphenyls	0.07 J	(1.28)	ND	(2.58)	0.1 J	(2.4)	ND	(2.03)
Total Dichlorobiphenyls	1.92 J	(3.66)	1.32 J	(7.37)	2.43 J	(6.86)	6.02	(5.81)
Total Heptachlorobiphenyls	73.31	(1.56)	1.09 J	(3.15)	7.61	(2.93)	13.76	(2.48)
Total Hexachlorobiphenyls	293.75	(1.75)	10.37	(3.51)	12.89	(3.27)	15.29	(2.77)
Total Nonachlorobiphenyls	2.2 J	(2.58)	ND	(5.19)	ND	(4.83)	ND	(4.09)
Total Octachlorobiphenyls	27.16	(3.87)	1.44 J	(7.79)	1.5 J	(7.24)	1.25 J	(6.13)
Total PCBs	9	(2.92)	16.8	(5.87)	41.8	(5.46)	42.7	(4.62)
Total Pentachlorobiphenyls	276.76	(2.24)	8.18	(4.5)	13.62	(4.19)	27.62	(3.54)
Total Tetrachlorobiphenyls	20.46	(1.05)	10.89	(2.12)	11.5	(1.97)	10.15	(1.67)
Total Trichlorobiphenyls	1.95 J	(2.28)	4.78	(4.59)	12.43	(4.27)	9.08	(3.61)
Toxaphene	ND	(6.76)	ND	(13.6)	ND	(12.65)	ND	(10.71)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-17			G G-01 9307-2			G G-01 9307-3			G G-01 9307-4		
alpha-BHC	ND		(1.14)	6.34		(2.29)	4.92		(2.13)	ND		(1.81)
alpha-Chlordane	ND		(1.64)	ND		(3.3)	ND		(3.07)	ND		(2.6)
beta-BHC	0.8	J	(2.97)	0.23	J	(5.97)	ND		(5.56)	0.97	J	(4.7)
cis-Nonachlor	ND		(0.47)	ND		(0.95)	ND		(0.89)	2.46		(0.75)
delta-BHC	ND		(1.22)	ND		(2.46)	2.12	J	(2.29)	ND		(1.93)
gamma-BHC	ND		(0.72)	ND		(1.45)	ND		(1.35)	0.79	J	(1.15)
gamma-Chlordane	ND		(0.78)	ND		(1.57)	3.68		(1.46)	2.83		(1.24)
trans-Nonachlor	1.47	J	(4.06)	ND		(8.16)	ND		(7.6)	0.79	J	(6.43)
SW8270 - Semivolatile Organics (ppb)												
1,2,4,5-Tetrachlorobenzene	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
1,2,4-Trichlorobenzene	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
1,2-Dichlorobenzene	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
1,3,-Dichlorobenzene	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
1,3-Dinitrobenzene	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
1,4,-Phenylenediamine (2)	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
1,4-Dichlorobenzene	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
1,4-Naphthoquinone	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
1-Naphthylamine	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
2,3,4,6-Tetrachlorophenol	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
2,4,5-Trichlorophenol	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
2,4,6-Trichlorophenol	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
2,4-Dichlorophenol	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
2,4-Dimethylphenol	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
2,4-Dinitrophenol	ND		(1377)	ND		(2506)	ND		(2404)	ND		(2101)
2,4-Dinitrotoluene	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
2,6-Dichlorophenol	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
2,6-Dinitrotoluene	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
2-Acetylaminofluorene	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
2-Chloronaphthalene	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-17		G G-01 9307-2		G G-01 9307-3		G G-01 9307-4	
2-Chlorophenol	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
2-Methylnaphthalene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
2-Methylphenol	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
2-Naphthylamine	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
2-Nitroaniline	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
2-Nitrophenol	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
2-Picoline	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
3,3'-Dichlorobenzidine	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
3,3'-Dimethoxybenzidine	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
3-Methylchloanthrene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
3-Methylphenol (2)	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
3-Nitroaniline	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
4,6,-Dinitro-2-methylphenol	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
4-Aminobiphenyl	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
4-Bromophenyl-phenylether	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
4-Chloro-3-methylphenol	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
4-Chloroaniline	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
4-Chlorophenyl-phenylether	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
4-Methylphenol	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
4-Nitroaniline	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
4-Nitrophenol	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
4-Nitroquinoline-1-oxide	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
5-Nitro-o-toluidine	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
7,12-Dimethylbenz(a)anthracene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Acenaphthene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Acenaphthylene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Acetophenone	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Aniline	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Anthracene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-17		G G-01 9307-2		G G-01 9307-3		G G-01 9307-4	
Aramite (peak 2) 2	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Aramite (peak1) 2	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Benzo(a)anthracene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Benzo(a)pyrene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Benzo(b)fluoranthene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Benzo(g,h,i)perylene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Benzo(k)fluoranthene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Benzyl alcohol	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Bis(2-Ethylhexyl)phthalate	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Butylbenzylphthalate	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Chlorobenzilate	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Chrysene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Di-n-butylphthalate	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Di-n-octylphthalate	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Diallate (peak 1) (2)	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Diallate (peak 2) 2	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Dibenz(a,h)anthracene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Dibenzofuran	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Diethylphthalate	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Dimethylphenethyamine	ND	(8264)	ND	(15038)	ND	(14423)	ND	(12605)
Dimethylphthalate	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Diphenylamine	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Ethylmethansulfonate (2)	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Fluoranthene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Fluorene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Hexachlorobenzene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Hexachlorobutadiene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Hexachlorocyclopentadiene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Hexachloroethane	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-17		G G-01 9307-2		G G-01 9307-3		G G-01 9307-4	
Hexachlorophene (2)	ND	(139807)	ND	(254386)	ND	(243990)	ND	(213235)
Hexachloropropene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Indeno(1,2,3-cd)pyrene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Isophorone	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Isosafrole	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Methapyrilene (2)	ND	(3444)	ND	(6266)	ND	(6010)	ND	(5252)
Methylmethansulfonate (2)	ND	(3444)	ND	(6266)	ND	(6010)	ND	(5252)
N-Nitrosodiphenylamine	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Naphthalene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Nitrobenzene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Pentachlorobenzene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Pentachloroethane (2)	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Pentachloronitrobenzene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Pentachlorophenol	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Phenactin	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Phenanthrene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Phenol	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Pronamide	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Pyrene	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Pyridine (2)	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
Safrole (2)	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
bis(2-Chloroethoxy)methane	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
bis(2-Chloroethyl)ether	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
bis(2-Chloroisopropyl)ether	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
n-Nitroso-di-n-butylamine	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
n-Nitroso-di-n-propylamine	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
n-Nitrosodiethylamine	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
n-Nitrosodimethylamine	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)
n-Nitrosomethylethylamine	ND	(689)	ND	(1253)	ND	(1202)	ND	(1050)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-17			G G-01 9307-2			G G-01 9307-3			G G-01 9307-4		
n-Nitrosomorpholine	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
n-Nitrosopiperidine	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
n-Nitrosopyrrolidine	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
o-Toluidine	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
p-Dimethylaminoazobenzene	ND		(689)	ND		(1253)	ND		(1202)	ND		(1050)
SW8290 - Dioxins and Furans (pg/g)												
1,2,3,4,6,7,8-HpCDD	NA			ND		(68)	ND		(59.8)	ND		(49)
1,2,3,4,6,7,8-HpCDF	NA			ND		(68)	ND		(59.8)	ND		(49)
1,2,3,4,7,8,9-HpCDF	NA			ND		(68)	ND		(59.8)	ND		(49)
1,2,3,4,7,8-HxCDD	NA			ND		(68)	ND		(59.8)	ND		(49)
1,2,3,4,7,8-HxCDF	NA			ND		(68)	ND		(59.8)	ND		(49)
1,2,3,6,7,8-HxCDD	NA			ND		(68)	ND		(59.8)	ND		(49)
1,2,3,6,7,8-HxCDF	NA			ND		(68)	ND		(59.8)	ND		(49)
1,2,3,7,8,9-HxCDD	NA			ND		(68)	ND		(59.8)	ND		(49)
1,2,3,7,8,9-HxCDF	NA			ND		(68)	ND		(59.8)	ND		(49)
1,2,3,7,8-PeCDD	NA			ND		(68)	ND		(59.8)	ND		(49)
1,2,3,7,8-PeCDF	NA			20.5	J	(68)	18.93	J	(59.8)	21.61	J	(49)
2,3,4,6,7,8-HxCDF	NA			ND		(68)	ND		(59.8)	ND		(49)
2,3,4,7,8-PeCDF	NA			ND		(68)	ND		(59.8)	ND		(49)
2,3,7,8-TCDD	NA			ND		(27.2)	ND		(23.9)	ND		(19.6)
2,3,7,8-TCDF	NA			ND		(27.2)	ND		(23.9)	ND		(19.6)
OCDD	NA			ND		(135.9)	ND		(119.5)	ND		(98.1)
OCDF	NA			ND		(135.9)	ND		(119.5)	ND		(98.1)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-5			G G-01 9307-6			C C-01 9307-7			C C-01 9307-8		
SOP-9017 - Chlorinated Pesticides and PCBs (ng/g)												
2,4'-DDD	ND		(0.81)	0.45	J	(1.15)	ND		(4.37)	0.05	J	(4.02)
2,4'-DDE	ND		(0.37)	ND		(0.53)	ND		(2.01)	ND		(1.85)
2,4'-DDT	ND		(0.59)	0.2	J	(0.84)	ND		(3.18)	0.75	J	(2.93)
4,4'-DDD	1.13		(0.49)	4.37		(0.69)	11.1		(2.61)	4.18		(2.41)
4,4'-DDE	1.67		(0.96)	6.38		(1.35)	78.89		(5.14)	139.19		(4.74)
4,4'-DDT	ND		(0.48)	0.35	J	(0.68)	ND		(2.58)	ND		(2.38)
Aldrin	ND		(0.62)	0.2	J	(0.88)	ND		(3.34)	ND		(3.08)
Dieldrin	0.04	J	(0.84)	ND		(1.19)	0.33	J	(4.51)	6.57		(4.16)
Endrin	0.04	J	(0.62)	1.21		(0.87)	ND		(3.32)	ND		(3.06)
HCB	0.07	J	(0.68)	0.1	J	(0.96)	1.7	J	(3.65)	2.24	J	(3.37)
Heptachlor	0.15	J	(0.65)	0.85	J	(0.92)	ND		(3.5)	ND		(3.23)
Heptachlor epoxide	ND		(0.72)	0.05	J	(1.03)	ND		(3.9)	ND		(3.59)
Mirex	ND		(0.69)	0.1	J	(0.97)	ND		(3.69)	ND		(3.4)
Oxychlordane	0.73	J	(0.9)	ND		(1.27)	9.02		(4.84)	13.65		(4.46)
Total BHCs	0.04	J	(1.75)	1.81	J	(2.48)	1.54	J	(9.42)	3.24	J	(8.69)
Total Chlordanes	1.71	J	(1.8)	2.81		(2.55)	12.18		(9.69)	18.08		(8.93)
Total DDTs	2.8		(1.23)	11.75		(1.74)	89.98		(6.63)	144.17		(6.11)
Total Decachlorobiphenyls	ND		(0.74)	ND		(1.05)	ND		(3.99)	ND		(3.68)
Total Dichlorobiphenyls	0.4	J	(2.12)	1.46	J	(3)	ND		(11.41)	0.15	J	(10.52)
Total Heptachlorobiphenyls	0.04	J	(0.91)	4.67		(1.28)	19.99		(4.87)	29.68		(4.49)
Total Hexachlorobiphenyls	1.02		(1.01)	5.37		(1.43)	32.75		(5.44)	49.8		(5.01)
Total Nonachlorobiphenyls	ND		(1.5)	ND		(2.12)	ND		(8.04)	ND		(7.41)
Total Octachlorobiphenyls	ND		(2.24)	1.05	J	(3.17)	2.66	J	(12.05)	5.98	J	(11.11)
Total PCBs	7.1		(1.69)	27.5		(2.39)	12.8		(9.09)	17.9		(8.38)
Total Pentachlorobiphenyls	1.97		(1.3)	14.16		(1.83)	51.7		(6.96)	61.06		(6.42)
Total Tetrachlorobiphenyls	3.17		(0.61)	9.39		(0.86)	11.97		(3.28)	14.84		(3.02)
Total Trichlorobiphenyls	0.51	J	(1.32)	6.03		(1.87)	2.62	J	(7.1)	4.63	J	(6.54)
Toxaphene	ND		(3.92)	ND		(5.54)	ND		(21.05)	ND		(19.4)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-5			G G-01 9307-6			C C-01 9307-7			C C-01 9307-8		
alpha-BHC	ND		(0.66)	ND		(0.93)	ND		(3.55)	ND		(3.27)
alpha-Chlordane	ND		(0.95)	ND		(1.35)	ND		(5.11)	ND		(4.71)
beta-BHC	ND		(1.72)	0.05	J	(2.43)	1.54	J	(9.24)	2.29	J	(8.52)
cis-Nonachlor	ND		(0.27)	0.05	J	(0.39)	1.21	J	(1.48)	1.84		(1.36)
delta-BHC	ND		(0.71)	1.26		(1)	ND		(3.8)	ND		(3.5)
gamma-BHC	0.04	J	(0.42)	0.5	J	(0.59)	ND		(2.25)	0.95	J	(2.07)
gamma-Chlordane	0.84		(0.45)	1.1		(0.64)	1.16	J	(2.43)	0.7	J	(2.24)
trans-Nonachlor	ND		(2.35)	0.75	J	(3.33)	0.79	J	(12.64)	1.89	J	(11.65)
SW8270 - Semivolatile Organics (ppb)												
1,2,4,5-Tetrachlorobenzene	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
1,2,4-Trichlorobenzene	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
1,2-Dichlorobenzene	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
1,3,-Dichlorobenzene	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
1,3-Dinitrobenzene	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
1,4,-Phenylenediamine (2)	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
1,4-Dichlorobenzene	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
1,4-Naphthoquinone	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
1-Naphthylamine	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
2,3,4,6-Tetrachlorophenol	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
2,4,5-Trichlorophenol	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
2,4,6-Trichlorophenol	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
2,4-Dichlorophenol	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
2,4-Dimethylphenol	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
2,4-Dinitrophenol	ND		(727)	ND		(957)	ND		(3731)	ND		(2041)
2,4-Dinitrotoluene	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
2,6-Dichlorophenol	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
2,6-Dinitrotoluene	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
2-Acetylaminofluorene	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)
2-Chloronaphthalene	ND		(363)	ND		(478)	ND		(1866)	ND		(2041)

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PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-5		G G-01 9307-6		C C-01 9307-7		C C-01 9307-8	
2-Chlorophenol	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
2-Methylnaphthalene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
2-Methylphenol	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
2-Naphthylamine	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
2-Nitroaniline	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
2-Nitrophenol	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
2-Picoline	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
3,3'-Dichlorobenzidine	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
3,3'-Dimethoxybenzidine	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
3-Methylchloanthrene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
3-Methylphenol (2)	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
3-Nitroaniline	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
4,6,-Dinitro-2-methylphenol	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
4-Aminobiphenyl	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
4-Bromophenyl-phenylether	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
4-Chloro-3-methylphenol	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
4-Chloroaniline	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
4-Chlorophenyl-phenylether	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
4-Methylphenol	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
4-Nitroaniline	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
4-Nitrophenol	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
4-Nitroquinoline-1-oxide	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
5-Nitro-o-toluidine	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
7,12-Dimethylbenz(a)anthracene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Acenaphthene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Acenaphthylene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Acetophenone	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Aniline	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Anthracene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)

Compiled: 11 April 1995 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-5		G G-01 9307-6		C C-01 9307-7		C C-01 9307-8	
Aramite (peak 2) 2	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Aramite (peak1) 2	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Benzo(a)anthracene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Benzo(a)pyrene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Benzo(b)fluoranthene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Benzo(g,h,i)perylene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Benzo(k)fluoranthene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Benzyl alcohol	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Bis(2-Ethylhexyl)phthalate	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Butylbenzylphthalate	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Chlorobenzilate	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Chrysene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Di-n-butylphthalate	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Di-n-octylphthalate	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Diallate (peak 1) (2)	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Diallate (peak 2) 2	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Dibenz(a,h)anthracene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Dibenzofuran	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Diethylphthalate	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Dimethylphenethyamine	ND	(4360)	ND	(5742)	ND	(22388)	ND	(24490)
Dimethylphthalate	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Diphenylamine	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Ethylmethansulfonate (2)	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Fluoranthene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Fluorene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Hexachlorobenzene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Hexachlorobutadiene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Hexachlorocyclopentadiene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Hexachloroethane	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-5		G G-01 9307-6		C C-01 9307-7		C C-01 9307-8	
Hexachlorophene (2)	ND	(73765)	ND	(97129)	ND	(378731)	ND	(414286)
Hexachloropropene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Indeno(1,2,3-cd)pyrene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Isophorone	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Isosafrole	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Methapyrilene (2)	ND	(1817)	ND	(2392)	ND	(9328)	ND	(10204)
Methylmethansulfonate (2)	ND	(1817)	ND	(2392)	ND	(9328)	ND	(10204)
N-Nitrosodiphenylamine	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Naphthalene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Nitrobenzene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Pentachlorobenzene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Pentachloroethane (2)	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Pentachloronitrobenzene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Pentachlorophenol	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Phenactin	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Phenanthrene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Phenol	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Pronamide	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Pyrene	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Pyridine (2)	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
Safrole (2)	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
bis(2-Chloroethoxy)methane	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
bis(2-Chloroethyl)ether	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
bis(2-Chloroisopropyl)ether	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
n-Nitroso-di-n-butylamine	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
n-Nitroso-di-n-propylamine	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
n-Nitrosodiethylamine	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
n-Nitrosodimethylamine	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)
n-Nitrosomethylethylamine	ND	(363)	ND	(478)	ND	(1866)	ND	(2041)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9307-5			G G-01 9307-6			C C-01 9307-7			C C-01 9307-8	
n-Nitrosomorpholine	ND		(363)	ND		(478)	ND		(1866)	ND	(2041)
n-Nitrosopiperidine	ND		(363)	ND		(478)	ND		(1866)	ND	(2041)
n-Nitrosopyrrolidine	ND		(363)	ND		(478)	ND		(1866)	ND	(2041)
o-Toluidine	ND		(363)	ND		(478)	ND		(1866)	ND	(2041)
p-Dimethylaminoazobenzene	ND		(363)	ND		(478)	ND		(1866)	ND	(2041)
SW8290 - Dioxins and Furans (pg/g)											
1,2,3,4,6,7,8-HpCDD	ND		(18.1)	ND		(24.6)	ND		(103.7)	ND	(107.4)
1,2,3,4,6,7,8-HpCDF	ND		(18.1)	ND		(24.6)	ND		(103.7)	ND	(107.4)
1,2,3,4,7,8,9-HpCDF	ND		(18.1)	ND		(24.6)	ND		(103.7)	ND	(107.4)
1,2,3,4,7,8-HxCDD	ND		(18.1)	ND		(24.6)	ND		(103.7)	ND	(107.4)
1,2,3,4,7,8-HxCDF	ND		(18.1)	ND		(24.6)	ND		(103.7)	ND	(107.4)
1,2,3,6,7,8-HxCDD	ND		(18.1)	ND		(24.6)	ND		(103.7)	ND	(107.4)
1,2,3,6,7,8-HxCDF	ND		(18.1)	ND		(24.6)	ND		(103.7)	ND	(107.4)
1,2,3,7,8,9-HxCDD	ND		(18.1)	ND		(24.6)	ND		(103.7)	ND	(107.4)
1,2,3,7,8,9-HxCDF	ND		(18.1)	ND		(24.6)	ND		(103.7)	ND	(107.4)
1,2,3,7,8-PeCDD	ND		(18.1)	ND		(24.6)	ND		(103.7)	ND	(107.4)
1,2,3,7,8-PeCDF	ND		(18.1)	6.5	J	(24.6)	ND		(103.7)	ND	(107.4)
2,3,4,6,7,8-HxCDF	ND		(18.1)	ND		(24.6)	ND		(103.7)	ND	(107.4)
2,3,4,7,8-PeCDF	ND		(18.1)	ND		(24.6)	ND		(103.7)	ND	(107.4)
2,3,7,8-TCDD	ND		(7.3)	ND		(9.8)	ND		(41.5)	ND	(43)
2,3,7,8-TCDF	ND		(7.3)	ND		(9.8)	ND		(41.5)	ND	(43)
OCDD	ND		(36.3)	ND		(49.2)	ND		(207.4)	ND	(214.9)
OCDF	ND		(36.3)	ND		(49.2)	ND		(207.4)	ND	(214.9)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID C C-01 9307-9		
SOP-9017 - Chlorinated Pesticides and PCBs (ng/g)			
2,4'-DDD	0.05	J	(4.12)
2,4'-DDE	4.55		(1.89)
2,4'-DDT	ND		(3)
4,4'-DDD	8.99		(2.46)
4,4'-DDE	92.14		(4.85)
4,4'-DDT	ND		(2.43)
Aldrin	ND		(3.15)
Dieldrin	4.7		(4.25)
Endrin	0.21	J	(3.13)
HCB	1.34	J	(3.45)
Heptachlor	ND		(3.3)
Heptachlor epoxide	ND		(3.68)
Mirex	ND		(3.48)
Oxychlordane	10.34		(4.57)
Total BHCs	1.34	J	(8.89)
Total Chlordanes	14.26		(9.14)
Total DDTs	105.74		(6.25)
Total Decachlorobiphenyls	ND		(3.77)
Total Dichlorobiphenyls	0.16	J	(10.77)
Total Heptachlorobiphenyls	16.33		(4.59)
Total Hexachlorobiphenyls	25.06		(5.13)
Total Nonachlorobiphenyls	ND		(7.58)
Total Octachlorobiphenyls	2.48	J	(11.37)
Total PCBs	11.5		(8.57)
Total Pentachlorobiphenyls	37.57		(6.57)
Total Tetrachlorobiphenyls	6.2		(3.09)
Total Trichlorobiphenyls	2.95	J	(6.7)
Toxaphene	ND		(19.86)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

	SITE ID		
	LOCATION ID		
	SAMPLE ID		
PARAMETER	C C-01 9307-9		
alpha-BHC	ND		(3.35)
alpha-Chlordane	0.72	J	(4.82)
beta-BHC	1.34	J	(8.72)
cis-Nonachlor	1.03	J	(1.39)
delta-BHC	ND		(3.59)
gamma-BHC	ND		(2.12)
gamma-Chlordane	0.52	J	(2.3)
trans-Nonachlor	1.65	J	(11.92)
SW8270 - Semivolatile Organics (ppb)			
1,2,4,5-Tetrachlorobenzene	ND		(2427)
1,2,4-Trichlorobenzene	ND		(2427)
1,2-Dichlorobenzene	ND		(2427)
1,3,-Dichlorobenzene	ND		(2427)
1,3-Dinitrobenzene	ND		(2427)
1,4,-Phenylenediamine (2)	ND		(2427)
1,4-Dichlorobenzene	ND		(2427)
1,4-Naphthoquinone	ND		(2427)
1-Naphthylamine	ND		(2427)
2,3,4,6-Tetrachlorophenol	ND		(2427)
2,4,5-Trichlorophenol	ND		(2427)
2,4,6-Trichlorophenol	ND		(2427)
2,4-Dichlorophenol	ND		(2427)
2,4-Dimethylphenol	ND		(2427)
2,4-Dinitrophenol	ND		(4854)
2,4-Dinitrotoluene	ND		(2427)
2,6-Dichlorophenol	ND		(2427)
2,6-Dinitrotoluene	ND		(2427)
2-Acetylaminofluorene	ND		(2427)
2-Chloronaphthalene	ND		(2427)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID C C-D1 9307-9	
2-Chlorophenol	ND	(2427)
2-Methylnaphthalene	ND	(2427)
2-Methylphenol	ND	(2427)
2-Naphthylamine	ND	(2427)
2-Nitroaniline	ND	(2427)
2-Nitrophenol	ND	(2427)
2-Picoline	ND	(2427)
3,3'-Dichlorobenzidine	ND	(2427)
3,3'-Dimethoxybenzidine	ND	(2427)
3-Methylchloanthrene	ND	(2427)
3-Methylphenol (2)	ND	(2427)
3-Nitroaniline	ND	(2427)
4,6,-Dinitro-2-methylphenol	ND	(2427)
4-Aminobiphenyl	ND	(2427)
4-Bromophenyl-phenylether	ND	(2427)
4-Chloro-3-methylphenol	ND	(2427)
4-Chloroaniline	ND	(2427)
4-Chlorophenyl-phenylether	ND	(2427)
4-Methylphenol	ND	(2427)
4-Nitroaniline	ND	(2427)
4-Nitrophenol	ND	(2427)
4-Nitroquinoline-1-oxide	ND	(2427)
5-Nitro-o-toluidine	ND	(2427)
7,12-Dimethylbenz(a)anthracene	ND	(2427)
Acenaphthene	ND	(2427)
Acenaphthylene	ND	(2427)
Acetophenone	ND	(2427)
Aniline	ND	(2427)
Anthracene	ND	(2427)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID C C-01 9307-9	
Aramite (peak 2) 2	ND	(2427)
Aramite (peak1) 2	ND	(2427)
Benzo(a)anthracene	ND	(2427)
Benzo(a)pyrene	ND	(2427)
Benzo(b)fluoranthene	ND	(2427)
Benzo(g,h,i)perylene	ND	(2427)
Benzo(k)fluoranthene	ND	(2427)
Benzyl alcohol	ND	(2427)
Bis(2-Ethylhexyl)phthalate	ND	(2427)
Butylbenzylphthalate	ND	(2427)
Chlorobenzilate	ND	(2427)
Chrysene	ND	(2427)
Di-n-butylphthalate	ND	(2427)
Di-n-octylphthalate	ND	(2427)
Diallate (peak 1) (2)	ND	(2427)
Diallate (peak 2) 2	ND	(2427)
Dibenz(a,h)anthracene	ND	(2427)
Dibenzofuran	ND	(2427)
Diethylphthalate	ND	(2427)
Dimethylphenethyamine	ND	(29126)
Dimethylphthalate	ND	(2427)
Diphenylamine	ND	(2427)
Ethylmethansulfonate (2)	ND	(2427)
Fluoranthene	ND	(2427)
Fluorene	ND	(2427)
Hexachlorobenzene	ND	(2427)
Hexachlorobutadiene	ND	(2427)
Hexachlorocyclopentadiene	ND	(2427)
Hexachloroethane	ND	(2427)

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TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID C C-01 9307-9	
Hexachlorophene (2)	ND	(492718)
Hexachloropropene	ND	(2427)
Indeno(1,2,3-cd)pyrene	ND	(2427)
Isophorone	ND	(2427)
Isosafrole	ND	(2427)
Methapyrilene (2)	ND	(12136)
Methylmethansulfonate (2)	ND	(12136)
N-Nitrosodiphenylamine	ND	(2427)
Naphthalene	ND	(2427)
Nitrobenzene	ND	(2427)
Pentachlorobenzene	ND	(2427)
Pentachloroethane (2)	ND	(2427)
Pentachloronitrobenzene	ND	(2427)
Pentachlorophenol	ND	(2427)
Phenactin	ND	(2427)
Phenanthrene	ND	(2427)
Phenol	ND	(2427)
Pronamide	ND	(2427)
Pyrene	ND	(2427)
Pyridine (2)	ND	(2427)
Safrole (2)	ND	(2427)
bis(2-Chloroethoxy)methane	ND	(2427)
bis(2-Chloroethyl)ether	ND	(2427)
bis(2-Chloroisopropyl)ether	ND	(2427)
n-Nitroso-di-n-butylamine	ND	(2427)
n-Nitroso-di-n-propylamine	ND	(2427)
n-Nitrosodiethylamine	ND	(2427)
n-Nitrosodimethylamine	ND	(2427)
n-Nitrosomethylethylamine	ND	(2427)

Compiled: 11 April 1995 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A2 RESULTS OF ORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID C C-01 9307-9	
n-Nitrosomorpholine	ND	(2427)
n-Nitrosopiperidine	ND	(2427)
n-Nitrosopyrrolidine	ND	(2427)
o-Toluidine	ND	(2427)
p-Dimethylaminoazobenzene	ND	(2427)
SW8290 - Dioxins and Furans (pg/g)		
1,2,3,4,6,7,8-HpCDD	ND	(115.6)
1,2,3,4,6,7,8-HpCDF	ND	(115.6)
1,2,3,4,7,8,9-HpCDF	ND	(115.6)
1,2,3,4,7,8-HxCDD	ND	(115.6)
1,2,3,4,7,8-HxCDF	ND	(115.6)
1,2,3,6,7,8-HxCDD	ND	(115.6)
1,2,3,6,7,8-HxCDF	ND	(115.6)
1,2,3,7,8,9-HxCDD	ND	(115.6)
1,2,3,7,8,9-HxCDF	ND	(115.6)
1,2,3,7,8-PeCDD	ND	(115.6)
1,2,3,7,8-PeCDF	ND	(115.6)
2,3,4,6,7,8-HxCDF	ND	(115.6)
2,3,4,7,8-PeCDF	ND	(115.6)
2,3,7,8-TCDD	ND	(46.2)
2,3,7,8-TCDF	ND	(46.2)
OCDD	ND	(231.2)
OCDF	ND	(231.2)

Compiled: 11 April 1995 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A3 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID A A-01 9303-AA-01-01		C C-01 9303-AC-01-01		C C-01 9303-AC-01-02 Dup of 9303-AC-01-01		D D-01 9303-AD-01-01	
E249.2 - Nickel (mg/kg)								
Nickel	0.080911 J	(0.174112)	0.191385	(0.165154)	0.188492	(0.162658)	0.363072	(0.169566)
E272.2 - Silver (mg/kg)								
Silver	0.608367	(0.035847)	0.223444	(0.034002)	0.218153	(0.033488)	0.389005	(0.034911)
SOP-9202 - Metals By DCP (mg/kg)								
Barium	1.941859	(0.020484)	2.095516	(0.01943)	2.271474	(0.019136)	1.747531	(0.019949)
Manganese	139.08465	(2.048375)	22.497899	(1.942992)	24.345153	(1.913626)	114.20794	(1.994899)
SW7040 - Antimony (mg/kg)								
Antimony	ND	(0.307256)	ND	(0.291449)	ND	(0.287044)	ND	(0.299235)
SW7060 - Arsenic (mg/kg)								
Arsenic	1.526039	(0.174112)	1.569937	(0.165154)	1.693559	(0.162658)	1.490189	(0.169566)
SW7131 - Cadmium (mg/kg)								
Cadmium	0.244781	(0.008193)	0.101036	(0.007772)	0.099509	(0.007655)	0.265322	(0.00798)
SW7191 - Chromium (mg/kg)								
Chromium	ND	(0.122902)	0.076748 J	(0.116579)	0.142565	(0.114818)	0.328161	(0.119694)
SW7421 - Lead (mg/kg)								
Lead	0.345151	(0.122902)	0.271047	(0.116579)	0.274605	(0.114818)	0.309209	(0.119694)
SW7450 - Magnesium (mg/kg)								
Magnesium	5729.3683	(0.307256)	3437.2734	(0.291449)	4025.7911	(0.287044)	3242.9571	(0.299235)
SW7471 - Mercury (mg/kg)								
Mercury	0.08011	(0.029851)	0.047525	(0.029969)	0.043259	(0.029552)	0.065091	(0.03335)
SW7740 - Selenium (mg/kg)								
Selenium	1.71449	(0.501852)	1.930362	(0.476033)	1.792111	(0.468838)	3.020277	(0.48875)
SW7841 - Thallium (mg/kg)								
Thallium	0.011266 J	(0.409675)	0.082577 J	(0.388598)	0.026791 J	(0.382725)	ND	(0.39898)
SW846 - Percent Moisture (%)								
Percent moisture (metals)	96.5	(NA)	94.6	(NA)	NA		95.2	(NA)
Percent moisture (organics)	95.68	(NA)	94.15	(NA)	94.22	(NA)	94.44	(NA)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A3 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID DT DT-01 9303-ADT-01-01		E E-01 9303-AE-01-01		E E-01 9303-AE-01-02 Dup of 9303-AE-01-01		F F-01 9303-AF-01-01	
E249.2 - Nickel (mg/kg)								
Nickel	3.683253	(0.170475)	0.144035 J	(0.166571)	0.308415	(0.169678)	0.136836 J	(0.166159)
E272.2 - Silver (mg/kg)								
Silver	0.734043	(0.035098)	0.282191	(0.034294)	0.291447	(0.034934)	0.525843	(0.034209)
SOP-9202 - Metals By DCP (mg/kg)								
Barium	29.052872	(0.020056)	2.29378	(0.019597)	2.409432	(0.019962)	1.924507	(0.019548)
Manganese	113.61626	(2.005583)	74.130919	(1.959658)	80.002321	(1.996215)	80.896744	(1.954807)
SW7040 - Antimony (mg/kg)								
Antimony	ND	(0.300837)	ND	(0.293949)	ND	(0.299432)	ND	(0.293221)
SW7060 - Arsenic (mg/kg)								
Arsenic	1.977505	(0.170475)	1.211069	(0.166571)	1.155809	(0.169678)	2.670266	(0.166159)
SW7131 - Cadmium (mg/kg)								
Cadmium	0.539502	(0.008022)	0.199885	(0.007839)	0.208604	(0.007985)	0.197435	(0.007819)
SW7191 - Chromium (mg/kg)								
Chromium	5.165378	(0.120335)	0.096023 J	(0.117579)	0.080847 J	(0.119773)	0.18082	(0.117288)
SW7421 - Lead (mg/kg)								
Lead	5.938531	(0.120335)	0.147954	(0.117579)	0.145724	(0.119773)	0.141723	(0.117288)
SW7450 - Magnesium (mg/kg)								
Magnesium	15438.600	(0.300837)	8690.3173	(0.293949)	8852.4351	(0.299432)	3598.3715	(0.293221)
SW7471 - Mercury (mg/kg)								
Mercury	0.086578	(0.033797)	0.042714	(0.035015)	0.042779	(0.033399)	0.035754	(0.032567)
SW7740 - Selenium (mg/kg)								
Selenium	2.221183	(0.491368)	2.041964	(0.480116)	2.013183	(0.489073)	2.500198	(0.478928)
SW7841 - Thallium (mg/kg)								
Thallium	0.002006 J	(0.401117)	ND	(0.391932)	ND	(0.399243)	ND	(0.390961)
SW846 - Percent Moisture (%)								
Percent moisture (metals)	NA		97.7	(NA)	97.7	(NA)	94.9	(NA)
Percent moisture (organics)	97.8	(NA)	97.75	(NA)	97.66	(NA)	94.48	(NA)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A3 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID G G-01 9303-AG-01-01		LH LH-01 9303-ALH-01-01		LH LH-02 9303-ALH-02-01		LH LH-03 9303-ALH-03-01	
E249.2 - Nickel (mg/kg)								
Nickel	0.050547 J	(0.179022)	0.579613	(0.174089)	0.700074	(0.173488)	0.245451	(0.182213)
E272.2 - Silver (mg/kg)								
Silver	0.461244	(0.036857)	0.088068	(0.035842)	0.13879	(0.035718)	0.102897	(0.037514)
SOP-9202 - Metals By DCP (mg/kg)								
Barium	0.971982	(0.021061)	5.589269	(0.020481)	5.561813	(0.02041)	5.566065	(0.021437)
Manganese	65.79467	(2.106137)	39.821238	(2.048102)	45.897713	(2.041032)	33.029818	(2.14368)
SW7040 - Antimony (mg/kg)								
Antimony	ND	(0.315921)	ND	(0.307215)	ND	(0.306155)	0.258313 J	(0.321552)
SW7060 - Arsenic (mg/kg)								
Arsenic	1.625938	(0.179022)	1.572942	(0.174089)	2.316572	(0.173488)	1.530587	(0.182213)
SW7131 - Cadmium (mg/kg)								
Cadmium	0.175862	(0.008425)	0.176137	(0.008192)	0.269416	(0.008164)	0.228302	(0.008575)
SW7191 - Chromium (mg/kg)								
Chromium	ND	(0.126368)	0.200714	(0.122886)	0.179611	(0.122462)	0.316193	(0.128621)
SW7421 - Lead (mg/kg)								
Lead	0.117944	(0.126368)	0.142343	(0.122886)	0.155118	(0.122462)	0.169351	(0.128621)
SW7450 - Magnesium (mg/kg)								
Magnesium	3272.7395	(0.315921)	21935.167	(0.307215)	13662.159	(0.306155)	19730.227	(0.321552)
SW7471 - Mercury (mg/kg)								
Mercury	0.055046	(0.034712)	0.061964	(0.033865)	0.069844	(0.03368)	0.074394	(0.033881)
SW7740 - Selenium (mg/kg)								
Selenium	2.153525	(0.516004)	0.88478	(0.501785)	1.81856	(0.500053)	1.413757	(0.525202)
SW7841 - Thallium (mg/kg)								
Thallium	ND	(0.421227)	ND	(0.40962)	ND	(0.408206)	0.035371 J	(0.428736)
SW846 - Percent Moisture (%)								
Percent moisture (metals)	94.2	(NA)	97.9	(NA)	97.1	(NA)	97.7	(NA)
Percent moisture (organics)	93.94	(NA)	97.67	(NA)	97.21	(NA)	98.03	(NA)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A3 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID LS LS-01 9303-ALS-01-01			LS LS-02 9303-ALS-02-01			A A-01 9303-BA-01-01		DT DT-02 9303-BDT-01-01	
E249.2 - Nickel (mg/kg)										
Nickel	1.747243		(0.165569)	0.240615		(0.175556)	NA		NA	
E272.2 - Silver (mg/kg)										
Silver	0.029218	J	(0.034088)	0.043373		(0.036144)	NA		NA	
SOP-9202 - Metals By DCP (mg/kg)										
Barium	3.76232		(0.019479)	4.60266		(0.020654)	NA		NA	
Manganese	49.132214		(1.947875)	89.066686		(2.065362)	NA		NA	
SW7040 - Antimony (mg/kg)										
Antimony	0.013635		(0.292181)	0.085713		(0.309804)	NA		NA	
SW7060 - Arsenic (mg/kg)										
Arsenic	2.232264		(0.165569)	2.296683		(0.175556)	NA		NA	
SW7131 - Cadmium (mg/kg)										
Cadmium	0.257119		(0.007791)	0.162131		(0.008261)	NA		NA	
SW7191 - Chromium (mg/kg)										
Chromium	5.341072		(0.116872)	0.452314		(0.123922)	NA		NA	
SW7421 - Lead (mg/kg)										
Lead	0.626242		(0.116872)	0.602053		(0.123922)	NA		NA	
SW7450 - Magnesium (mg/kg)										
Magnesium	31292.605		(0.292181)	28341.289		(0.309804)	NA		NA	
SW7471 - Mercury (mg/kg)										
Mercury	0.067853		(0.034765)	0.04408		(0.03285)	NA		NA	
SW7740 - Selenium (mg/kg)										
Selenium	0.658382		(0.477229)	0.225124	J	(0.506014)	NA		NA	
SW7841 - Thallium (mg/kg)										
Thallium	0.164595	J	(0.389575)	0.089843	J	(0.413072)	NA		NA	
SW846 - Percent Moisture (%)										
Percent moisture (metals)	97.8		(NA)	97.9		(NA)	NA		NA	
Percent moisture (organics)	98.68		(NA)	97.5		(NA)	94	(NA)	87.95	(NA)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A3 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID E E-01 9303-BE-01-01		DT DT-02 9303-FDT-01-01		DT DT-02 9303-FDT-01-01.1		DT DT-02 9303-FDT-01-01.2	
E249.2 - Nickel (mg/kg)								
Nickel	0.497058	(0.195602)	ND	(0.166639)	ND	(0.169076)	ND	(0.169682)
E272.2 - Silver (mg/kg)								
Silver	3.378154	(0.040271)	0.25878	(0.034308)	0.282457	(0.03481)	0.259514	(0.034935)
SOP-9202 - Metals By DCP (mg/kg)								
Barium	7.131403	(0.023012)	8.336849	(0.019605)	7.237464	(0.019891)	7.400143	(0.019963)
Manganese	30.749716	(2.301195)	18.558678	(1.960458)	18.437282	(1.989134)	20.137293	(1.996262)
SW7040 - Antimony (mg/kg)								
Antimony	0.121963 J	(0.345179)	ND	(0.294069)	0.015913 J	(0.29837)	0.024953 J	(0.299439)
SW7060 - Arsenic (mg/kg)								
Arsenic	0.2324	(0.195602)	0.143113 J	(0.166639)	0.224772	(0.169076)	0.141735 J	(0.169682)
SW7131 - Cadmium (mg/kg)								
Cadmium	0.060982	(0.009205)	0.018624	(0.007842)	0.018897	(0.007957)	0.016968	(0.007985)
SW7191 - Chromium (mg/kg)								
Chromium	0.705316	(0.138072)	ND	(0.117627)	ND	(0.119348)	0.062882 J	(0.119776)
SW7421 - Lead (mg/kg)								
Lead	0.507413	(0.138072)	0.035288 J	(0.117627)	0.015913 J	(0.119348)	0.040923 J	(0.119776)
SW7450 - Magnesium (mg/kg)								
Magnesium	1861.2711	(0.345179)	1663.7858	(0.294069)	1656.4201	(0.29837)	2529.3263	(0.299439)
SW7471 - Mercury (mg/kg)								
Mercury	0.02603	(0.035565)	0.106084	(0.033448)	0.097405	(0.03194)	0.089896	(0.035251)
SW7740 - Selenium (mg/kg)								
Selenium	1.31053	(0.563793)	2.919122	(0.480312)	2.671407	(0.487338)	2.431447	(0.489084)
SW7841 - Thallium (mg/kg)								
Thallium	ND	(0.460239)	0.012743 J	(0.392092)	ND	(0.397827)	ND	(0.399252)
SW846 - Percent Moisture (%)								
Percent moisture (metals)	89.8	(NA)	21.8	(NA)	21.8	(NA)	21.8	(NA)
Percent moisture (organics)	91.6	(NA)	NA		NA		NA	

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A3 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID DT DT-03 9303-FDT-02-01			DT DT-04 9303-FDT-03-01			G G-01 9303-FG-01-01			LH LH-01 9303-FLH-01-01		
E249.2 - Nickel (mg/kg)												
Nickel	0.127014		(0.205642)	0.195076		(0.174542)	ND		(0.186222)	ND		(0.174911)
E272.2 - Silver (mg/kg)												
Silver	0.902406		(0.042338)	0.48461		(0.035935)	0.236611		(0.03834)	0.117293		(0.036011)
SOP-9202 - Metals By DCP (mg/kg)												
Barium	7.536182		(0.024193)	6.30609		(0.020534)	7.043563		(0.021908)	5.18354		(0.020578)
Manganese	58.949157		(2.41932)	85.171232		(2.053432)	15.596617		(2.190844)	18.368747		(2.057777)
SW7040 - Antimony (mg/kg)												
Antimony	0.002419	J	(0.362898)	ND		(0.308015)	ND		(0.328627)	0.014404	J	(0.308667)
SW7060 - Arsenic (mg/kg)												
Arsenic	1.064501		(0.205642)	0.306		(0.174542)	0.131451	J	(0.186222)	ND		(0.174911)
SW7131 - Cadmium (mg/kg)												
Cadmium	0.111289		(0.009677)	0.126286		(0.008214)	0.087634		(0.008763)	0.013376		(0.008231)
SW7191 - Chromium (mg/kg)												
Chromium	0.117337		(0.145159)	0.390152		(0.123206)	0.007668	J	(0.131451)	0.042184	J	(0.123467)
SW7421 - Lead (mg/kg)												
Lead	0.367737		(0.145159)	0.399393		(0.123206)	0.007668	J	(0.131451)	0.024693	J	(0.123467)
SW7450 - Magnesium (mg/kg)												
Magnesium	1210.0381		(0.362898)	2064.6618		(0.308015)	1623.6206		(0.328627)	1598.7963		(0.308667)
SW7471 - Mercury (mg/kg)												
Mercury	0.936788		(0.032819)	0.199378		(0.034051)	0.033313		(0.030344)	0.097721		(0.030811)
SW7740 - Selenium (mg/kg)												
Selenium	3.387048		(0.592733)	2.677676		(0.503091)	2.188653		(0.536757)	1.818046		(0.504155)
SW7841 - Thallium (mg/kg)												
Thallium	0.185078	J	(0.483864)	0.020534	J	(0.410686)	ND		(0.438169)	ND		(0.411555)
SW846 - Percent Moisture (%)												
Percent moisture (metals)	21		(NA)	22.1		(NA)	22.3		(NA)	18.3		(NA)
Percent moisture (organics)	79.05		(NA)	77.93		(NA)	77.69		(NA)	80.67		(NA)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A3 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID LH LH-02 9303-FLH-02-01			LH LH-03 9303-FLH-03-01			LH LH-03 9303-FLH-03-02 Dup of 9303-FLH-03-01			LS LS-01 9303-GLS-01-01		
E249.2 - Nickel (mg/kg)												
Nickel	0.051991	J	(0.184136)	ND		(0.169646)	0.073739	J	(0.176558)	0.535442		(0.18205)
E272.2 - Silver (mg/kg)												
Silver	0.151641		(0.03791)	0.115759		(0.034927)	0.105935		(0.03635)	0.047119		(0.037481)
SOP-9202 - Metals By DCP (mg/kg)												
Barium	6.164222		(0.021663)	5.094378		(0.019958)	6.393468		(0.020772)	3.630295		(0.021418)
Manganese	17.108398		(2.166306)	17.661177		(1.995839)	21.287672		(2.07715)	136.10929		(2.141767)
SW7040 - Antimony (mg/kg)												
Antimony	0.064989	J	(0.324946)	0.001996	J	(0.299376)	ND		(0.311573)	0.83636		(0.321265)
SW7060 - Arsenic (mg/kg)												
Arsenic	0.060657	J	(0.184136)	0.039917	J	(0.169646)	0.0499	J	(0.176558)	3.1591		(0.18205)
SW7131 - Cadmium (mg/kg)												
Cadmium	0.011915		(0.008665)	0.011975		(0.007983)	0.017656		(0.008309)	0.10923		(0.008567)
SW7191 - Chromium (mg/kg)												
Chromium	0.122396	J	(0.129978)	ND		(0.11975)	0.03635	J	(0.124629)	0.488323		(0.128506)
SW7421 - Lead (mg/kg)												
Lead	0.030328	J	(0.129978)	0.188607		(0.11975)	0.042582	J	(0.124629)	0.455125		(0.128506)
SW7450 - Magnesium (mg/kg)												
Magnesium	1648.5923		(0.324946)	1582.4817		(0.299376)	1589.0197		(0.311573)	18995.799		(0.321265)
SW7471 - Mercury (mg/kg)												
Mercury	0.067926		(0.032755)	0.047108		(0.032182)	0.062752		(0.032151)	0.036639		(0.030035)
SW7740 - Selenium (mg/kg)												
Selenium	2.076404		(0.530745)	1.936961		(0.48898)	1.424925		(0.508902)	0.027843		(0.524733)
SW7841 - Thallium (mg/kg)												
Thallium	ND		(0.433261)	ND		(0.399168)	0.02181	J	(0.41543)	0.261296	J	(0.428353)
SW846 - Percent Moisture (%)												
Percent moisture (metals)	19.8		(NA)	20.7		(NA)	20		(NA)	93.2		(NA)
Percent moisture (organics)	79.37		(NA)	79.29		(NA)	80		(NA)	88.36		(NA)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

TABLE A3 RESULTS OF INORGANIC ANALYSES FOR BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION.

PARAMETER	SITE ID LOCATION ID SAMPLE ID DT DT-01 9303-IDT-01-01				SITE ID LOCATION ID SAMPLE ID LS LS-01 9303-NLS-01-01		
E249.2 - Nickel (mg/kg)							
Nickel	0.109377		(0.167514)		0.515526		(0.169188)
E272.2 - Silver (mg/kg)							
Silver	0.928225		(0.034488)		0.119427		(0.034833)
SOP-9202 - Metals By DCP (mg/kg)							
Barium	0.754799		(0.019708)		3.603706		(0.019904)
Manganese	23.089349		(1.970754)		107.28514		(1.990448)
SW7040 - Antimony (mg/kg)							
Antimony	0.0404	J	(0.295613)		0.203026	J	(0.298567)
SW7060 - Arsenic (mg/kg)							
Arsenic	0.404		(0.167514)		3.0135		(0.169188)
SW7131 - Cadmium (mg/kg)							
Cadmium	0.105435		(0.007883)		0.359276		(0.007962)
SW7191 - Chromium (mg/kg)							
Chromium	0.127114		(0.118245)		0.22094		(0.119427)
SW7421 - Lead (mg/kg)							
Lead	0.076859	J	(0.118245)		0.204021		(0.119427)
SW7450 - Magnesium (mg/kg)							
Magnesium	1248.5031		(0.295613)		10492.304		(0.298567)
SW7471 - Mercury (mg/kg)							
Mercury	0.073377		(0.027342)		0.065164		(0.031423)
SW7740 - Selenium (mg/kg)							
Selenium	1.847581		(0.482835)		2.22134		(0.48766)
SW7841 - Thallium (mg/kg)							
Thallium	ND		(0.394151)		ND		(0.39809)
SW846 - Percent Moisture (%)							
Percent moisture (metals)	80.3		(NA)		92.9		(NA)
Percent moisture (organics)	71.96		(NA)		90.86		(NA)

Compiled: 29 September 1993 () = Reporting Limit ND = Not Detected NA = Not Applicable * - Value considered suspect, Refer to QC Report

Appendix D

Attachment B - Tabular Listing of Biological Data QC Results

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : E249.2 - Nickel
Analyte : Nickel

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
29 November 1993	BLANK-A	TRACE9	ND	0.034	mg/Kg	NA
29 November 1993	BLANK-B	TRACE9	ND	0.034	mg/Kg	NA
29 November 1993	BLANK-D	TRACE9	ND	0.034	mg/Kg	NA
29 November 1993	BLANK-C	TRACE9	ND	0.034	mg/Kg	NA

Total Number of Blanks = 4 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 0.034

Method : E272.2 - Silver
Analyte : Silver

Type of Blank : Method Blank

1 December 1993	BLANK-B	TRACE1	ND	0.007	mg/Kg	NA
1 December 1993	BLANK-A	TRACE1	0.01	0.007	mg/Kg	NA
1 December 1993	BLANK-C	TRACE1	ND	0.007	mg/Kg	NA
1 December 1993	BLANK-D	TRACE1	ND	0.007	mg/Kg	NA

Total Number of Blanks = 4 Concentration Range 0.010 - 0.010
Total Number above Detection Limit = 0 Maximum Detection Limit = 0.007

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Analyte : 2,4'-DDD

Type of Blank : Reagent Blank

23 January 1994	PROC BLANK	M923	ND	1.160	ng/g	NA

Total Number of Blanks = 1 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 1.16

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Analyte : 2,4'-DDE

Type of Blank : Reagent Blank

23 January 1994	PROC BLANK	M923	0.18 (J)	0.530	ng/g	NA

Total Number of Blanks = 1 Concentration Range 0.18 - 0.18
Total Number above Detection Limit = 0 Maximum Detection Limit = 0.53

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : 2,4'-DDT						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.11 (J)	0.840	ng/g	NA
Total Number of Blanks = 1			Concentration Range	0.11 - 0.11		
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.84			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : 4,4'-DDD						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.24 (J)	0.690	ng/g	NA
Total Number of Blanks = 1			Concentration Range	0.24 - 0.24		
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.69			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : 4,4'-DDE						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.44 (J)	1.360	ng/g	NA
Total Number of Blanks = 1			Concentration Range	0.44 - 0.44		
Total Number above Detection Limit = 0			Maximum Detection Limit = 1.36			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : 4,4'-DDT						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.04 (J)	0.680	ng/g	NA
Total Number of Blanks = 1			Concentration Range	0.040 - 0.040		
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.68			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Aldrin						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.08 (J)	0.880	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.080 - 0.080			
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.88			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Dieldrin						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.28 (J)	1.190	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.28 - 0.28			
Total Number above Detection Limit = 0			Maximum Detection Limit = 1.19			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Endrin						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	ND	0.880	ng/g	NA
Total Number of Blanks = 1			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.88			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : HCB						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.06 (J)	0.970	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.060 - 0.060			
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.97			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Heptachlor						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.05 (J)	0.930	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.050 - 0.050			
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.93			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Heptachlor epoxide						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	ND	1.030	ng/g	NA
Total Number of Blanks = 1			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 1.03			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Mirex						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.17 (J)	0.980	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.17 - 0.17			
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.98			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Oxychlordane						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.15 (J)	1.280	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.15 - 0.15			
Total Number above Detection Limit = 0			Maximum Detection Limit = 1.28			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Total BHCs						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	1.86 (J)	2.490	ng/g	NA
Total Number of Blanks = 1			Concentration Range 1.9 - 1.9			
Total Number above Detection Limit = 0			Maximum Detection Limit = 2.49			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Total Chlordanes						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.99 (J)	2.560	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.99 - 0.99			
Total Number above Detection Limit = 0			Maximum Detection Limit = 2.56			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Total DDTs						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	1.01 (J)	1.750	ng/g	NA
Total Number of Blanks = 1			Concentration Range 1.0 - 1.0			
Total Number above Detection Limit = 0			Maximum Detection Limit = 1.75			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Total Decachlorobiphenyls						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.17 (J)	1.060	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.17 - 0.17			
Total Number above Detection Limit = 0			Maximum Detection Limit = 1.06			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Total Dichlorobiphenyls						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.07 (J)	3.020	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.070 - 0.070			
Total Number above Detection Limit = 0			Maximum Detection Limit = 3.02			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Total Heptachlorobiphenyls						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.99 (J)	1.290	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.99 - 0.99			
Total Number above Detection Limit = 0			Maximum Detection Limit = 1.29			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Total Hexachlorobiphenyls						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	1.11 (J)	1.440	ng/g	NA
Total Number of Blanks = 1			Concentration Range 1.1 - 1.1			
Total Number above Detection Limit = 0			Maximum Detection Limit = 1.44			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Total Nonachlorobiphenyls						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.4 (J)	2.130	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.40 - 0.40			
Total Number above Detection Limit = 0			Maximum Detection Limit = 2.13			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Analyte : Total Octachlorobiphenyls

Type of Blank : Reagent Blank

23 January 1994	PROC BLANK	M923	0.25 (J)	3.190	ng/g	NA

Total Number of Blanks = 1 Concentration Range 0.25 - 0.25
Total Number above Detection Limit = 0 Maximum Detection Limit = 3.19

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Analyte : Total PCBs

Type of Blank : Reagent Blank

23 January 1994	PROC BLANK	M923	0.8 (J)	2.410	ng/g	NA

Total Number of Blanks = 1 Concentration Range 0.80 - 0.80
Total Number above Detection Limit = 0 Maximum Detection Limit = 2.41

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Analyte : Total Pentachlorobiphenyls

Type of Blank : Reagent Blank

23 January 1994	PROC BLANK	M923	1.35 (J)	1.840	ng/g	NA

Total Number of Blanks = 1 Concentration Range 1.4 - 1.4
Total Number above Detection Limit = 0 Maximum Detection Limit = 1.84

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Analyte : Total Tetrachlorobiphenyls

Type of Blank : Reagent Blank

23 January 1994	PROC BLANK	M923	0.46 (J)	0.870	ng/g	NA

Total Number of Blanks = 1 Concentration Range 0.46 - 0.46
Total Number above Detection Limit = 0 Maximum Detection Limit = 0.87

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Total Trichlorobiphenyls						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.03 (J)	1.880	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.030 - 0.030			
Total Number above Detection Limit = 0			Maximum Detection Limit = 1.88			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : Toxaphene						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	ND	5.570	ng/g	NA
Total Number of Blanks = 1			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 5.57			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : alpha-BHC						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	ND	0.940	ng/g	NA
Total Number of Blanks = 1			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.94			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : alpha-Chlordane						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.23 (J)	1.350	ng/g	NA
Total Number of Blanks = 1			Concentration Range 0.23 - 0.23			
Total Number above Detection Limit = 0			Maximum Detection Limit = 1.35			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Analyte : beta-BHC

Type of Blank : Reagent Blank

23 January 1994	PROC BLANK	M923	0.13 (J)	2.450	ng/g	NA

Total Number of Blanks = 1 Concentration Range 0.13 - 0.13
Total Number above Detection Limit = 0 Maximum Detection Limit = 2.45

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Analyte : cis-Nonachlor

Type of Blank : Reagent Blank

23 January 1994	PROC BLANK	M923	0.27 (J)	0.390	ng/g	NA

Total Number of Blanks = 1 Concentration Range 0.27 - 0.27
Total Number above Detection Limit = 0 Maximum Detection Limit = 0.39

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Analyte : delta-BHC

Type of Blank : Reagent Blank

23 January 1994	PROC BLANK	M923	0.75 (J)	1.010	ng/g	NA

Total Number of Blanks = 1 Concentration Range 0.75 - 0.75
Total Number above Detection Limit = 0 Maximum Detection Limit = 1.01

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Analyte : gamma-BHC

Type of Blank : Reagent Blank

23 January 1994	PROC BLANK	M923	0.98	0.600	ng/g	NA

Total Number of Blanks = 1 Concentration Range 0.98 - 0.98
Total Number above Detection Limit = 0 Maximum Detection Limit = 0.6

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : gamma-Chlordane						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.2 (J)	0.640	ng/g	NA
Total Number of Blanks = 1			Concentration Range	0.20 - 0.20		
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.64			
Method : SOP-9017 - Chlorinated Pesticides and PCBs						
Analyte : trans-Nonachlor						
Type of Blank : Reagent Blank						
23 January 1994	PROC BLANK	M923	0.09 (J)	3.340	ng/g	NA
Total Number of Blanks = 1			Concentration Range	0.090 - 0.090		
Total Number above Detection Limit = 0			Maximum Detection Limit = 3.34			
Method : SOP-9202 - Metals By DCP						
Analyte : Barium						
Type of Blank : Method Blank						
2 December 1993	BLANK-D	TRACE3	0.1	0.010	mg/Kg	NA
2 December 1993	BLANK-C	TRACE3	0.03	0.010	mg/Kg	NA
2 December 1993	BLANK-B	TRACE3	0.01	0.010	mg/Kg	NA
2 December 1993	BLANK-A	TRACE3	0.01	0.010	mg/Kg	NA
Total Number of Blanks = 4			Concentration Range	0.010 - 0.10		
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.01			
Method : SOP-9202 - Metals By DCP						
Analyte : Manganese						
Type of Blank : Method Blank						
29 November 1993	BLANK-B	TRACE8	ND	0.400	mg/Kg	NA
29 November 1993	BLANK-C	TRACE8	ND	0.400	mg/Kg	NA
29 November 1993	BLANK-D	TRACE8	ND	0.400	mg/Kg	NA
29 November 1993	BLANK-A	TRACE8	ND	0.400	mg/Kg	NA
Total Number of Blanks = 4			Concentration Range	NC		
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.4			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW7040 - Antimony						
Analyte : Antimony						
Type of Blank : Method Blank						
1 December 1993	BLANK-D	TRACE11	0.02 (J)	0.050	mg/Kg	NA
1 December 1993	BLANK-B	TRACE11	ND	0.050	mg/Kg	NA
1 December 1993	BLANK-A	TRACE11	ND	0.050	mg/Kg	NA
1 December 1993	BLANK-C	TRACE11	ND	0.050	mg/Kg	NA
Total Number of Blanks = 4			Concentration Range 0.020 - 0.020			
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.05			
Method : SW7060 - Arsenic						
Analyte : Arsenic						
Type of Blank : Method Blank						
30 November 1993	BLANK-A	TRACE2	ND	0.034	mg/Kg	NA
30 November 1993	BLANK-C	TRACE2	ND	0.034	mg/Kg	NA
30 November 1993	BLANK-B	TRACE2	ND	0.034	mg/Kg	NA
30 November 1993	BLANK-D	TRACE2	ND	0.034	mg/Kg	NA
Total Number of Blanks = 4			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.034			
Method : SW7131 - Cadmium						
Analyte : Cadmium						
Type of Blank : Method Blank						
23 November 1993	BLANK-A	TRACE4	ND	0.002	mg/Kg	NA
23 November 1993	BLANK-C	TRACE4	ND	0.002	mg/Kg	NA
23 November 1993	BLANK-D	TRACE4	ND	0.002	mg/Kg	NA
23 November 1993	BLANK-B	TRACE4	ND	0.002	mg/Kg	NA
Total Number of Blanks = 4			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.002			
Method : SW7191 - Chromium						
Analyte : Chromium						
Type of Blank : Method Blank						
23 November 1993	BLANK-B	TRACE5	ND	0.024	mg/Kg	NA
23 November 1993	BLANK-C	TRACE5	0.03	0.024	mg/Kg	NA
23 November 1993	BLANK-D	TRACE5	ND	0.024	mg/Kg	NA

Compiled: 13 March 1995 ND = Not Detected NC = Not Calculable NA = Not Applicable

* - Value considered suspect, Refer to QC Report () = Data Flag

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW7191 - Chromium						
Analyte : Chromium, continued						
Type of Blank : Method Blank						
23 November 1993	BLANK-A	TRACE5	0.02 (J)	0.024	mg/Kg	NA
Total Number of Blanks = 4			Concentration Range 0.020 - 0.030			
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.024			
Method : SW7421 - Lead						
Analyte : Lead						
Type of Blank : Method Blank						
29 November 1993	BLANK-C	TRACE10	0.02 (J)	0.024	mg/Kg	NA
29 November 1993	BLANK-B	TRACE10	0.02 (J)	0.024	mg/Kg	NA
29 November 1993	BLANK-D	TRACE10	0.01 (J)	0.024	mg/Kg	NA
29 November 1993	BLANK-A	TRACE10	0.01 (J)	0.024	mg/Kg	NA
Total Number of Blanks = 4			Concentration Range 0.010 - 0.020			
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.024			
Method : SW7450 - Magnesium						
Analyte : Magnesium						
Type of Blank : Method Blank						
30 November 1993	BLANK-B	TRACE7	ND	0.200	mg/Kg	NA
30 November 1993	BLANK-C	TRACE7	ND	0.200	mg/Kg	NA
30 November 1993	BLANK-A	TRACE7	ND	0.200	mg/Kg	NA
30 November 1993	BLANK-D	TRACE7	ND	0.200	mg/Kg	NA
Total Number of Blanks = 4			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 0.2			
Method : SW7471 - Mercury						
Analyte : Mercury						
Type of Blank : Method Blank						
1 December 1993	BLANK-B	TRACE6	0.001 (J)	0.006	mg/Kg	NA
1 December 1993	BLANK-A	TRACE6	0.001 (J)	0.006	mg/Kg	NA
1 December 1993	BLANK-C	TRACE6	0.001 (J)	0.006	mg/Kg	NA
1 December 1993	BLANK-D	TRACE6	0.001 (J)	0.006	mg/Kg	NA

Compiled: 13 March 1995 ND = Not Detected NC = Not Calculable NA = Not Applicable

* - Value considered suspect, Refer to QC Report () = Data Flag

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW7471 - Mercury
Analyte : Mercury, continued

Total Number of Blanks = 4 Concentration Range 0.0010 - 0.0010
Total Number above Detection Limit = 0 Maximum Detection Limit = 0.006

Method : SW7740 - Selenium
Analyte : Selenium

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
2 December 1993	BLANK-A	TRACE12	ND	0.098	mg/Kg	NA
2 December 1993	BLANK-D	TRACE12	ND	0.098	mg/Kg	NA
2 December 1993	BLANK-B	TRACE12	ND	0.098	mg/Kg	NA
2 December 1993	BLANK-C	TRACE12	ND	0.098	mg/Kg	NA

Total Number of Blanks = 4 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 0.098

Method : SW7841 - Thallium
Analyte : Thallium

Type of Blank : Method Blank

1 December 1993	BLANK-C	TRACE13	ND	0.080	mg/Kg	NA
1 December 1993	BLANK-B	TRACE13	ND	0.080	mg/Kg	NA
1 December 1993	BLANK-A	TRACE13	ND	0.080	mg/Kg	NA
1 December 1993	BLANK-D	TRACE13	ND	0.080	mg/Kg	NA

Total Number of Blanks = 4 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 0.08

Method : SW8270 - Semivolatile Organics
Analyte : 1,2,4,5-Tetrachlorobenzene

Type of Blank : Method Blank

6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : 1,2,4-Trichlorobenzene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 1,2-Dichlorobenzene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 1,3,-Dichlorobenzene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 1,3-Dinitrobenzene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : 1,4,-Phenylenediamine (2)						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 1,4-Dichlorobenzene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 1,4-Naphthoquinone						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 1-Naphthylamine						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : 2,3,4,6-Tetrachlorophenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 2,4,5-Trichlorophenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 2,4,6-Trichlorophenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 2,4-Dichlorophenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : 2,4-Dimethylphenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 2,4-Dinitrophenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	100.000	ppb	NA
12 December 1993	BLANK	M902	ND	100.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 100			
Method : SW8270 - Semivolatile Organics						
Analyte : 2,4-Dinitrotoluene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 2,6-Dichlorophenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : 2,6-Dinitrotoluene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 2-Acetylaminofluorene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 2-Chloronaphthalene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 2-Chlorophenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : 2-Methylnaphthalene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 2-Methylphenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 2-Naphthylamine						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 2-Nitroaniline						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : 2-Nitrophenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 2-Picoline						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 3,3'-Dichlorobenzidine						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 3,3'-Dimethoxybenzidine						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8270 - Semivolatile Organics
Analyte : 3-Methylchloanthrene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : 3-Methylphenol (2)

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : 3-Nitroaniline

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : 4,6,-Dinitro-2-methylphenol

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : 4-Aminobiphenyl						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 4-Bromophenyl-phenylether						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 4-Chloro-3-methylphenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 4-Chloroaniline						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 . DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : 4-Chlorophenyl-phenylether						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 4-Methylphenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 4-Nitroaniline						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 4-Nitrophenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : 4-Nitroquinoline-1-oxide						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 5-Nitro-o-toluidine						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : 7,12-Dimethylbenz(a)anthracene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Acenaphthene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : Acenaphthylene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Acetophenone						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Aniline						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Anthracene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : Aramite (peak 2) 2						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Aramite (peak1) 2						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Benzo(a)anthracene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Benzo(a)pyrene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8270 - Semivolatile Organics
Analyte : Benzo(b)fluoranthene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : Benzo(g,h,i)perylene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : Benzo(k)fluoranthene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : Benzyl alcohol

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : Bis(2-Ethylhexyl)phthalate						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Butylbenzylphthalate						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Chlorobenzilate						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Chrysene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : Di-n-butylphthalate						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Di-n-octylphthalate						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Diallate (peak 1) (2)						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Diallate (peak 2) 2						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : Dibenz(a,h)anthracene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Dibenzofuran						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Diethylphthalate						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Dimethylphenethyamine						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	600.000	ppb	NA
12 December 1993	BLANK	M902	ND	600.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 600			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : Dimethylphthalate						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Diphenylamine						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Ethylmethansulfonate (2)						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Fluoranthene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8270 - Semivolatile Organics
Analyte : Fluorene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : Hexachlorobenzene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : Hexachlorobutadiene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : Hexachlorocyclopentadiene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8270 - Semivolatile Organics
Analyte : Hexachloroethane

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : Hexachlorophene (2)

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	10150.000	ppb	NA
12 December 1993	BLANK	M902	ND	10150.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 10150

Method : SW8270 - Semivolatile Organics
Analyte : Hexachloropropene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : Indeno(1,2,3-cd)pyrene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : Isophorone						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Isosafrole						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Methapyrilene (2)						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	250.000	ppb	NA
12 December 1993	BLANK	M902	ND	250.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 250			
Method : SW8270 - Semivolatile Organics						
Analyte : Methylmethansulfonate (2)						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	250.000	ppb	NA
12 December 1993	BLANK	M902	ND	250.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 250			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : N-Nitrosodiphenylamine						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Naphthalene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Nitrobenzene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Pentachlorobenzene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : Pentachloroethane (2)						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Pentachloronitrobenzene						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Pentachlorophenol						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Phenactin						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8270 - Semivolatile Organics
Analyte : Phenanthrene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : Phenol

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : Pronamide

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : Pyrene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : Pyridine (2)						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : Safrole (2)						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : bis(2-Chloroethoxy)methane						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : bis(2-Chloroethyl)ether						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8270 - Semivolatile Organics
Analyte : bis(2-Chloroisopropyl)ether

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : n-Nitroso-di-n-butylamine

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : n-Nitroso-di-n-propylamine

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : n-Nitrosodiethylamine

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8270 - Semivolatile Organics						
Analyte : n-Nitrosodimethylamine						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : n-Nitrosomethylethylamine						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : n-Nitrosomorpholine						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8270 - Semivolatile Organics						
Analyte : n-Nitrosopiperidine						
Type of Blank : Method Blank						
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8270 - Semivolatile Organics
Analyte : n-Nitrosopyrrolidine

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : o-Toluidine

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8270 - Semivolatile Organics
Analyte : p-Dimethylaminoazobenzene

Type of Blank : Method Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
6 December 1993	BLANK	M901	ND	50.000	ppb	NA
12 December 1993	BLANK	M902	ND	50.000	ppb	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

Method : SW8290 - Dioxins and Furans
Analyte : 1,2,3,4,6,7,8-HpCDD

Type of Blank : Reagent Blank

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
19 February 1994	PROC BLANK	M899	ND	50.000	pg/g	NA
19 February 1994	PROC BLANK	M900	ND	25.000	pg/g	NA

Total Number of Blanks = 2 Concentration Range NC
Total Number above Detection Limit = 0 Maximum Detection Limit = 50

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8290 - Dioxins and Furans						
Analyte : 1,2,3,4,6,7,8-HpCDF						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M900	ND	25.000	pg/g	NA
19 February 1994	PROC BLANK	M899	ND	25.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 25			
Method : SW8290 - Dioxins and Furans						
Analyte : 1,2,3,4,7,8,9-HpCDF						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M900	ND	25.000	pg/g	NA
19 February 1994	PROC BLANK	M899	ND	25.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 25			
Method : SW8290 - Dioxins and Furans						
Analyte : 1,2,3,4,7,8-HxCDD						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M900	ND	25.000	pg/g	NA
19 February 1994	PROC BLANK	M899	ND	25.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 25			
Method : SW8290 - Dioxins and Furans						
Analyte : 1,2,3,4,7,8-HxCDF						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M899	ND	25.000	pg/g	NA
19 February 1994	PROC BLANK	M900	ND	25.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 25			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8290 - Dioxins and Furans						
Analyte : 1,2,3,6,7,8-HxCDD						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M900	ND	25.000	pg/g	NA
19 February 1994	PROC BLANK	M899	ND	25.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 25			
Method : SW8290 - Dioxins and Furans						
Analyte : 1,2,3,6,7,8-HxCDF						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M899	ND	25.000	pg/g	NA
19 February 1994	PROC BLANK	M900	ND	25.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 25			
Method : SW8290 - Dioxins and Furans						
Analyte : 1,2,3,7,8,9-HxCDD						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M899	ND	25.000	pg/g	NA
19 February 1994	PROC BLANK	M900	ND	25.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 25			
Method : SW8290 - Dioxins and Furans						
Analyte : 1,2,3,7,8,9-HxCDF						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M899	ND	25.000	pg/g	NA
19 February 1994	PROC BLANK	M900	ND	25.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 25			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8290 - Dioxins and Furans						
Analyte : 1,2,3,7,8-PeCDD						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M899	ND	25.000	pg/g	NA
19 February 1994	PROC BLANK	M900	ND	25.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 25			
Method : SW8290 - Dioxins and Furans						
Analyte : 1,2,3,7,8-PeCDF						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M899	21.55 (J)	25.000	pg/g	NA
19 February 1994	PROC BLANK	M900	27	25.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range 21.6 - 27.0			
Total Number above Detection Limit = 0			Maximum Detection Limit = 25			
Method : SW8290 - Dioxins and Furans						
Analyte : 2,3,4,6,7,8-HxCDF						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M899	ND	25.000	pg/g	NA
19 February 1994	PROC BLANK	M900	ND	25.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 25			
Method : SW8290 - Dioxins and Furans						
Analyte : 2,3,4,7,8-PeCDF						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M899	ND	25.000	pg/g	NA
19 February 1994	PROC BLANK	M900	ND	25.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 25			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW8290 - Dioxins and Furans						
Analyte : 2,3,7,8-TCDD						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M900	ND	10.000	pg/g	NA
19 February 1994	PROC BLANK	M899	ND	10.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 10			
Method : SW8290 - Dioxins and Furans						
Analyte : 2,3,7,8-TCDF						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M900	ND	10.000	pg/g	NA
19 February 1994	PROC BLANK	M899	ND	10.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 10			
Method : SW8290 - Dioxins and Furans						
Analyte : OCDD						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M900	ND	50.000	pg/g	NA
Total Number of Blanks = 1			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			
Method : SW8290 - Dioxins and Furans						
Analyte : OCDF						
Type of Blank : Reagent Blank						
19 February 1994	PROC BLANK	M900	ND	50.000	pg/g	NA
19 February 1994	PROC BLANK	M899	ND	50.000	pg/g	NA
Total Number of Blanks = 2			Concentration Range NC			
Total Number above Detection Limit = 0			Maximum Detection Limit = 50			

TABLE B1 DETAILED LISTING OF BLANK RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	RESULT	DETECTION LIMIT	UNITS	FACTOR
Method : SW846 - Percent Moisture						
Analyte : Percent Moisture						
Type of Blank : Method Blank						
	BLANK-C	BLANK-C		NA	mg/Kg	NA
	BLANK-A	BLANK-A		NA	mg/Kg	NA
	BLANK-D	BLANK-D		NA	mg/Kg	NA
	BLANK-B	BLANK-B		NA	mg/Kg	NA

Total Number of Blanks = 4 Concentration Range NC

Total Number above Detection Limit = 0 Maximum Detection Limit = NA

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : E249.2 - Nickel
Spiked Analyte : Nickel

Type of Spike : Laboratory Control

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
11/29/93	DOLT2-B	TRACE9	155.00
11/29/93	DORM-A	TRACE9	96.67
11/29/93	DORM-B	TRACE9	91.67
11/29/93	LCS-D	TRACE9	102.30
11/29/93	LCS-E	TRACE9	97.00
11/29/93	NBS-OYS-D	TRACE9	97.78

Number of Samples	: 6	Below acceptance :	0
Mean % Recovery	: 106.7	Above acceptance :	1
Standard Deviation	: 23.88	Acceptance Criteria :	80-120

Type of Spike : Matrix Spike

11/29/93	9307-6MS	C12555-SP	97.00
11/29/93	9307-13MS	C12562-SP	103.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 100.0	Above acceptance :	0
Standard Deviation	: 4.24	Acceptance Criteria :	75-125

Method : E272.2 - Silver
Spiked Analyte : Silver

Type of Spike : Laboratory Control

12/01/93	LCS-D	TRACE1	94.70
12/01/93	LCS-E	TRACE1	98.70
12/01/93	NBS-OYS-D	TRACE1	107.60

Number of Samples	: 3	Below acceptance :	0
Mean % Recovery	: 100.3	Above acceptance :	0
Standard Deviation	: 6.60	Acceptance Criteria :	80-120

Type of Spike : Matrix Spike

12/01/93	9307-6MS	C12555-SP	99.50
12/01/93	9307-13MS	C12562-SP	95.60

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 97.6	Above acceptance :	0
Standard Deviation	: 2.76	Acceptance Criteria :	75-125

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : E272.2 - Silver
Spiked Analyte : Silver, continued

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : 2,4'-DDD

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	48.00
01/23/94	SPIKED BLANK	M923	30.10

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 39.1	Above acceptance :	0
Standard Deviation	: 12.66	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	23.30
01/23/94	9307-17MS	M923	44.90

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 34.1	Above acceptance :	0
Standard Deviation	: 15.27	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : 2,4'-DDE

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	59.70
01/23/94	SPIKED BLANK	M923	51.20

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 55.5	Above acceptance :	0
Standard Deviation	: 6.01	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	35.40
01/23/94	9307-17MS	M923	52.70

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 44.1	Above acceptance :	0
Standard Deviation	: 12.23	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : 2,4'-DDT

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	60.50
01/23/94	SPIKED BLANK	M923	47.90

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 54.2	Above acceptance :	0
Standard Deviation	: 8.91	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	23.90
01/23/94	9307-17MS	M923	51.60

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 37.8	Above acceptance :	0
Standard Deviation	: 19.59	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : 4,4'-DDD

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	59.20
01/23/94	SPIKED BLANK	M923	45.60

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 52.4	Above acceptance :	0
Standard Deviation	: 9.62	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	31.80
01/23/94	9307-17MS	M923	49.00

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 40.4	Above acceptance :	0
Standard Deviation	: 12.16	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
Method : SOP-9017 - Chlorinated Pesticides and PCBs			
Spiked Analyte : 4,4'-DDE			
Type of Spike : Laboratory Control			
01/22/94	SPIKED BLANK	M922	58.10
01/23/94	SPIKED BLANK	M923	47.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 52.7	Above acceptance :	0
Standard Deviation	: 7.64	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike			
01/22/94	9307-4MS	M922	10.60
01/23/94	9307-17MS	M923	199.00

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 104.8	Above acceptance :	1
Standard Deviation	: 133.22	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs			
Spiked Analyte : 4,4'-DDT			
Type of Spike : Laboratory Control			
01/22/94	SPIKED BLANK	M922	50.40
01/23/94	SPIKED BLANK	M923	35.70

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 43.1	Above acceptance :	0
Standard Deviation	: 10.39	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike			
01/22/94	9307-4MS	M922	28.80
01/23/94	9307-17MS	M923	47.40

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 38.1	Above acceptance :	0
Standard Deviation	: 13.15	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : Aldrin

Type of Spike : Laboratory Control

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
01/22/94	SPIKED BLANK	M922	66.80
01/23/94	SPIKED BLANK	M923	69.90

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 68.4	Above acceptance :	0
Standard Deviation	: 2.19	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	50.00
01/23/94	9307-17MS	M923	59.60

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 54.8	Above acceptance :	0
Standard Deviation	: 6.79	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : DBOFB

Type of Spike : Surrogate

01/21/94	9307-1	M922	68.30
01/21/94	9307-2	M922	63.40
01/21/94	9307-3	M922	63.00
01/21/94	9307-4	M922	73.20
01/21/94	9307-5	M922	74.10
01/21/94	9307-6	M922	70.60
01/21/94	9307-7	M922	82.10
01/22/94	9307-7	M922	78.40
01/22/94	9307-8	M922	75.70
01/22/94	9307-8	M922	66.00
01/22/94	9307-9	M922	76.20
01/22/94	9307-9	M922	80.60
01/22/94	9307-10	M923	78.60
01/22/94	9307-11	M923	79.80
01/22/94	9307-12	M923	76.80
01/22/94	9307-13	M923	83.50
01/22/94	9307-14	M923	81.70
01/23/94	9307-15	M923	87.30
01/23/94	9307-15	M923	76.40
01/23/94	9307-16	M923	80.00
01/23/94	9307-16	M923	58.50
01/23/94	9307-17	M923	68.30
01/23/94	9307-17	M923	79.60

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : DBOFB, continued

Number of Samples	: 23	Below acceptance :	0
Mean % Recovery	: 74.9	Above acceptance :	0
Standard Deviation	: 7.37	Acceptance Criteria :	20-150

Type of Spike : Surrogate - Blank Sample

01/23/94	PROC BLANK	M923	67.80

Number of Samples	: 1	Below acceptance :	0
Mean % Recovery	: 67.8	Above acceptance :	0
Standard Deviation	: NC	Acceptance Criteria :	20-150

Type of Spike : Surrogate - Laboratory Control

01/22/94	SPIKED BLANK	M922	79.20
01/23/94	SPIKED BLANK	M923	74.80

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 77.0	Above acceptance :	0
Standard Deviation	: 3.11	Acceptance Criteria :	20-150

Type of Spike : Surrogate - Matrix Spike

01/22/94	9307-4MS	M922	71.30
01/23/94	9307-17MS	M923	77.90

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 74.6	Above acceptance :	0
Standard Deviation	: 4.67	Acceptance Criteria :	20-150

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : Dieldrin

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	58.90
01/23/94	SPIKED BLANK	M923	54.80

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 56.9	Above acceptance :	0
Standard Deviation	: 2.90	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : Dieldrin, continued

Type of Spike : Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
01/22/94	9307-4MS	M922	27.10
01/23/94	9307-17MS	M923	50.50

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 38.8	Above acceptance :	0
Standard Deviation	: 16.55	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : Endrin

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	71.60
01/23/94	SPIKED BLANK	M923	66.20

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 68.9	Above acceptance :	0
Standard Deviation	: 3.82	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	48.90
01/23/94	9307-17MS	M923	71.40

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 60.2	Above acceptance :	0
Standard Deviation	: 15.91	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : HCB

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	75.80
01/23/94	SPIKED BLANK	M923	71.40

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 73.6	Above acceptance :	0
Standard Deviation	: 3.11	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : HCB, continued

Type of Spike : Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
01/22/94	9307-4MS	M922	68.30
01/23/94	9307-17MS	M923	78.70

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 73.5	Above acceptance :	0
Standard Deviation	: 7.35	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : Heptachlor

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	65.90
01/23/94	SPIKED BLANK	M923	66.40

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 66.2	Above acceptance :	0
Standard Deviation	: .35	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	56.70
01/23/94	9307-17MS	M923	66.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 61.5	Above acceptance :	0
Standard Deviation	: 6.79	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : Heptachlor epoxide

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	58.90
01/23/94	SPIKED BLANK	M923	56.90

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 57.9	Above acceptance :	0
Standard Deviation	: 1.41	Acceptance Criteria :	40-120

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : Heptachlor epoxide, continued

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	38.70
01/23/94	9307-17MS	M923	47.00

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 42.9	Above acceptance :	0
Standard Deviation	: 5.87	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : Mirex

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	51.90
01/23/94	SPIKED BLANK	M923	30.80

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 41.4	Above acceptance :	0
Standard Deviation	: 14.92	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	26.30
01/23/94	9307-17MS	M923	47.00

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 36.7	Above acceptance :	0
Standard Deviation	: 14.64	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : Oxychlordane

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	82.90
01/23/94	SPIKED BLANK	M923	76.89

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 79.9	Above acceptance :	0
Standard Deviation	: 4.25	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : Oxychlordane, continued

Type of Spike : Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
01/22/94	9307-4MS	M922	50.61
01/23/94	9307-17MS	M923	239.20

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 144.9	Above acceptance :	1
Standard Deviation	: 133.35	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : PCB#103

Type of Spike : Surrogate

01/21/94	9307-1	M922	67.70
01/21/94	9307-2	M922	44.00
01/21/94	9307-3	M922	45.20
01/21/94	9307-4	M922	61.30
01/21/94	9307-5	M922	44.10
01/21/94	9307-6	M922	53.70
01/21/94	9307-7	M922	77.70
01/22/94	9307-7	M922	64.60
01/22/94	9307-8	M922	76.60
01/22/94	9307-8	M922	63.30
01/22/94	9307-9	M922	76.90
01/22/94	9307-9	M922	76.30
01/22/94	9307-10	M923	46.70
01/22/94	9307-11	M923	70.80
01/22/94	9307-12	M923	88.30
01/22/94	9307-13	M923	90.70
01/22/94	9307-14	M923	56.60
01/23/94	9307-15	M923	83.80
01/23/94	9307-15	M923	82.90
01/23/94	9307-16	M923	44.10
01/23/94	9307-16	M923	87.70
01/23/94	9307-17	M923	80.00
01/23/94	9307-17	M923	55.40

Number of Samples	: 23	Below acceptance :	0
Mean % Recovery	: 66.9	Above acceptance :	0
Standard Deviation	: 15.80	Acceptance Criteria :	20-150

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : PCB#103, continued

Type of Spike : Surrogate - Blank Sample

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
01/23/94	PROC BLANK	M923	74.30

Number of Samples	: 1	Below acceptance :	0
Mean % Recovery	: 74.3	Above acceptance :	0
Standard Deviation	: NC	Acceptance Criteria :	20-150

Type of Spike : Surrogate - Laboratory Control

01/22/94	SPIKED BLANK	M922	83.00
01/23/94	SPIKED BLANK	M923	64.60

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 73.8	Above acceptance :	0
Standard Deviation	: 13.01	Acceptance Criteria :	20-150

Type of Spike : Surrogate - Matrix Spike

01/22/94	9307-4MS	M922	54.70
01/23/94	9307-17MS	M923	79.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 66.9	Above acceptance :	0
Standard Deviation	: 17.18	Acceptance Criteria :	20-150

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : PCB#198

Type of Spike : Surrogate

01/21/94	9307-1	M922	39.70
01/21/94	9307-2	M922	15.10
01/21/94	9307-3	M922	19.70
01/21/94	9307-4	M922	29.10
01/21/94	9307-5	M922	11.00
01/21/94	9307-6	M922	17.40
01/21/94	9307-7	M922	32.30
01/22/94	9307-7	M922	19.50
01/22/94	9307-8	M922	26.20
01/22/94	9307-8	M922	35.70
01/22/94	9307-9	M922	29.80
01/22/94	9307-9	M922	31.70
01/22/94	9307-10	M923	11.40
01/22/94	9307-11	M923	28.80

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : PCB#198, continued

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
01/22/94	9307-12	M923	52.50
01/22/94	9307-13	M923	54.40
01/22/94	9307-14	M923	16.70
01/23/94	9307-15	M923	123.40
01/23/94	9307-15	M923	53.50
01/23/94	9307-16	M923	14.20
01/23/94	9307-16	M923	127.40
01/23/94	9307-17	M923	16.90
01/23/94	9307-17	M923	46.60

Number of Samples	: 23	Below acceptance :	9
Mean % Recovery	: 37.1	Above acceptance :	0
Standard Deviation	: 30.92	Acceptance Criteria :	20-150

Type of Spike : Surrogate - Blank Sample

01/23/94	PROC BLANK	M923	50.50

Number of Samples	: 1	Below acceptance :	0
Mean % Recovery	: 50.5	Above acceptance :	0
Standard Deviation	: NC	Acceptance Criteria :	20-150

Type of Spike : Surrogate - Laboratory Control

01/22/94	SPIKED BLANK	M922	54.40
01/23/94	SPIKED BLANK	M923	32.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 43.2	Above acceptance :	0
Standard Deviation	: 15.84	Acceptance Criteria :	20-150

Type of Spike : Surrogate - Matrix Spike

01/22/94	9307-4MS	M922	22.20
01/23/94	9307-17MS	M923	43.80

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 33.0	Above acceptance :	0
Standard Deviation	: 15.27	Acceptance Criteria :	20-150

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : alpha-BHC

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	79.20
01/23/94	SPIKED BLANK	M923	98.60

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 88.9	Above acceptance :	0
Standard Deviation	: 13.72	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	65.70
01/23/94	9307-17MS	M923	67.80

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 66.8	Above acceptance :	0
Standard Deviation	: 1.48	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : alpha-Chlordane

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	72.10
01/23/94	SPIKED BLANK	M923	65.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 68.6	Above acceptance :	0
Standard Deviation	: 5.02	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	23.10
01/23/94	9307-17MS	M923	59.90

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 41.5	Above acceptance :	0
Standard Deviation	: 26.02	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : beta-BHC

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	56.00
01/23/94	SPIKED BLANK	M923	59.20

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 57.6	Above acceptance :	0
Standard Deviation	: 2.26	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	43.30
01/23/94	9307-17MS	M923	53.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 48.3	Above acceptance :	0
Standard Deviation	: 7.07	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : cis-Nonachlor

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	67.50
01/23/94	SPIKED BLANK	M923	54.08

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 60.8	Above acceptance :	0
Standard Deviation	: 9.49	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	32.17
01/23/94	9307-17MS	M923	60.42

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 46.3	Above acceptance :	0
Standard Deviation	: 19.98	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : delta-BHC

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	73.70
01/23/94	SPIKED BLANK	M923	92.70

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 83.2	Above acceptance :	0
Standard Deviation	: 13.44	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	28.60
01/23/94	9307-17MS	M923	64.20

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 46.4	Above acceptance :	0
Standard Deviation	: 25.17	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : gamma-BHC

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	81.80
01/23/94	SPIKED BLANK	M923	94.40

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 88.1	Above acceptance :	0
Standard Deviation	: 8.91	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	68.50
01/23/94	9307-17MS	M923	71.70

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 70.1	Above acceptance :	0
Standard Deviation	: 2.26	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : gamma-Chlordane

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	72.40
01/23/94	SPIKED BLANK	M923	64.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 68.4	Above acceptance :	0
Standard Deviation	: 5.73	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	44.90
01/23/94	9307-17MS	M923	89.80

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 67.4	Above acceptance :	0
Standard Deviation	: 31.75	Acceptance Criteria :	40-120

Method : SOP-9017 - Chlorinated Pesticides and PCBs
Spiked Analyte : trans-Nonachlor

Type of Spike : Laboratory Control

01/22/94	SPIKED BLANK	M922	65.80
01/23/94	SPIKED BLANK	M923	55.10

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 60.5	Above acceptance :	0
Standard Deviation	: 7.57	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

01/22/94	9307-4MS	M922	31.70
01/23/94	9307-17MS	M923	65.90

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 48.8	Above acceptance :	0
Standard Deviation	: 24.18	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SOP-9202 - Metals By DCP
Spiked Analyte : Barium

Type of Spike : Laboratory Control

12/02/93	LCS-D	TRACE3	116.50
12/02/93	LCS-E	TRACE3	100.10

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 108.3	Above acceptance :	0
Standard Deviation	: 11.60	Acceptance Criteria :	80-120

Type of Spike : Matrix Spike

12/02/93	9307-6MS	C12555-SP	100.30
12/02/93	9307-13MS	C12562-SP	96.60

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 98.5	Above acceptance :	0
Standard Deviation	: 2.62	Acceptance Criteria :	75-125

Method : SOP-9202 - Metals By DCP
Spiked Analyte : Manganese

Type of Spike : Laboratory Control

11/29/93	DOLT2-B	TRACE8	85.17	
11/29/93	DORM-A	TRACE8	90.91	(J)
11/29/93	DORM-B	TRACE8	89.39	
11/29/93	LCS-D	TRACE8	97.60	
11/29/93	LCS-E	TRACE8	95.30	
11/29/93	NBS-OYS-D	TRACE8	80.57	

Number of Samples	: 6	Below acceptance :	0
Mean % Recovery	: 89.8	Above acceptance :	0
Standard Deviation	: 6.31	Acceptance Criteria :	80-120

Type of Spike : Matrix Spike

11/29/93	9307-6MS	C12555-SP	106.00
11/29/93	9307-13MS	C12562-SP	98.80

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 102.4	Above acceptance :	0
Standard Deviation	: 5.09	Acceptance Criteria :	75-125

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SOP-9202 - Metals By DCP
Spiked Analyte : Manganese, continued

Method : SW7040 - Antimony
Spiked Analyte : Antimony

Type of Spike : Laboratory Control

12/01/93	LCS-D	TRACE11	103.20
12/01/93	LCS-E	TRACE11	105.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 104.3	Above acceptance :	0
Standard Deviation	: 1.48	Acceptance Criteria :	80-120

Type of Spike : Matrix Spike

12/01/93	9307-6MS	C12555-SP	99.70
12/01/93	9307-13MS	C12562-SP	102.50

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 101.1	Above acceptance :	0
Standard Deviation	: 1.98	Acceptance Criteria :	75-125

Method : SW7060 - Arsenic
Spiked Analyte : Arsenic

Type of Spike : Laboratory Control

11/30/93	DOLT2-B	TRACE2	96.87
11/30/93	DORM-A	TRACE2	92.94
11/30/93	DORM-B	TRACE2	96.95
11/30/93	LCS-D	TRACE2	91.20
11/30/93	LCS-E	TRACE2	99.00
11/30/93	NBS-OYS-D	TRACE2	91.50

Number of Samples	: 6	Below acceptance :	0
Mean % Recovery	: 94.7	Above acceptance :	0
Standard Deviation	: 3.28	Acceptance Criteria :	75-125

Type of Spike : Matrix Spike

11/30/93	9307-6MS	C12555-SP	100.20
11/30/93	9307-13MS	C12562-SP	98.40

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW7060 - Arsenic
Spiked Analyte : Arsenic, continued

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 99.3	Above acceptance :	0
Standard Deviation	: 1.27	Acceptance Criteria :	75-125

Method : SW7131 - Cadmium
Spiked Analyte : Cadmium

Type of Spike : Laboratory Control

11/23/93	DOLT2-B	TRACE4	94.28
11/23/93	DORM-A	TRACE4	93.02
11/23/93	DORM-B	TRACE4	116.30
11/23/93	LCS-D	TRACE4	107.80
11/23/93	LCS-E	TRACE4	105.30
11/23/93	NBS-OYS-D	TRACE4	98.07

Number of Samples	: 6	Below acceptance :	0
Mean % Recovery	: 102.5	Above acceptance :	0
Standard Deviation	: 8.98	Acceptance Criteria :	80-120

Type of Spike : Matrix Spike

11/23/93	9307-6MS	C12555-SP	108.50
11/23/93	9307-13MS	C12562-SP	101.40

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 105.0	Above acceptance :	0
Standard Deviation	: 5.02	Acceptance Criteria :	75-125

Method : SW7191 - Chromium
Spiked Analyte : Chromium

Type of Spike : Laboratory Control

11/23/93	DOLT2-B	TRACE5	89.19
11/23/93	DORM-A	TRACE5	92.78
11/23/93	DORM-B	TRACE5	83.61
11/23/93	LCS-D	TRACE5	102.60
11/23/93	LCS-E	TRACE5	98.70
11/23/93	NBS-OYS-D	TRACE5	83.22

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW7191 - Chromium
Spiked Analyte : Chromium, continued

Number of Samples	: 6	Below acceptance :	0
Mean % Recovery	: 91.7	Above acceptance :	0
Standard Deviation	: 7.91	Acceptance Criteria :	80-120

Type of Spike : Matrix Spike

11/23/93	9307-6MS	C12555-SP	101.90
11/23/93	9307-13MS	C12562-SP	100.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 101.1	Above acceptance :	0
Standard Deviation	: 1.13	Acceptance Criteria :	75-125

Method : SW7421 - Lead
Spiked Analyte : Lead

Type of Spike : Laboratory Control

11/29/93	DOLT2-B	TRACE10	118.20
11/29/93	DORM-A	TRACE10	110.00
11/29/93	DORM-B	TRACE10	82.50
11/29/93	LCS-D	TRACE10	100.00
11/29/93	LCS-E	TRACE10	96.60
11/29/93	NBS-OYS-D	TRACE10	88.95

Number of Samples	: 6	Below acceptance :	0
Mean % Recovery	: 99.4	Above acceptance :	0
Standard Deviation	: 13.18	Acceptance Criteria :	80-120

Type of Spike : Matrix Spike

11/29/93	9307-6MS	C12555-SP	97.30
11/29/93	9307-13MS	C12562-SP	93.90

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 95.6	Above acceptance :	0
Standard Deviation	: 2.40	Acceptance Criteria :	75-125

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW7450 - Magnesium
Spiked Analyte : Magnesium

Type of Spike : Laboratory Control

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
11/30/93	DORM-A	TRACE7	96.86
11/30/93	DORM-B	TRACE7	97.60
11/30/93	LCS-D	TRACE7	109.80
11/30/93	LCS-E	TRACE7	105.40
11/30/93	NBS-OYS-D	TRACE7	94.83

Number of Samples	: 5	Below acceptance :	0
Mean % Recovery	: 100.9	Above acceptance :	0
Standard Deviation	: 6.39	Acceptance Criteria :	80-120

Type of Spike : Matrix Spike

11/30/93	9307-6MS	C12555-SP	371.60
11/30/93	9307-13MS	C12562-SP	503.50

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 437.6	Above acceptance :	2
Standard Deviation	: 93.27	Acceptance Criteria :	75-125

Method : SW7471 - Mercury
Spiked Analyte : Mercury

Type of Spike : Laboratory Control

12/01/93	DOLT2-B	TRACE6	93.87
12/01/93	DORM-A	TRACE6	91.48
12/01/93	DORM-B	TRACE6	92.11
12/01/93	LCS-D	TRACE6	89.40
12/01/93	LCS-E	TRACE6	103.40
12/01/93	NBS-OYS-D	TRACE6	95.31

Number of Samples	: 6	Below acceptance :	0
Mean % Recovery	: 94.3	Above acceptance :	0
Standard Deviation	: 4.91	Acceptance Criteria :	80-120

Type of Spike : Matrix Spike

12/01/93	9307-6MS	C12555-SP	92.40
12/01/93	9307-13MS	C12562-SP	91.10

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW7471 - Mercury
Spiked Analyte : Mercury, continued

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 91.8	Above acceptance :	0
Standard Deviation	: .92	Acceptance Criteria :	75-125

Method : SW7740 - Selenium
Spiked Analyte : Selenium

Type of Spike : Laboratory Control

12/02/93	DOLT2-B	TRACE12	102.20
12/02/93	DORM-A	TRACE12	106.80
12/02/93	DORM-B	TRACE12	81.48
12/02/93	LCS-D	TRACE12	99.30
12/02/93	LCS-E	TRACE12	100.90
12/02/93	NBS-OYS-D	TRACE12	91.86

Number of Samples	: 6	Below acceptance :	0
Mean % Recovery	: 97.1	Above acceptance :	0
Standard Deviation	: 9.06	Acceptance Criteria :	80-120

Type of Spike : Matrix Spike

12/02/93	9307-6MS	C12555-SP	119.00
12/02/93	9307-13MS	C12562-SP	113.60

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 116.3	Above acceptance :	0
Standard Deviation	: 3.82	Acceptance Criteria :	75-125

Method : SW7841 - Thallium
Spiked Analyte : Thallium

Type of Spike : Laboratory Control

12/01/93	LCS-D	TRACE13	108.90
12/01/93	LCS-E	TRACE13	98.90

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 103.9	Above acceptance :	0
Standard Deviation	: 7.07	Acceptance Criteria :	80-120

Method : SW7841 - Thallium
Spiked Analyte : Thallium, continued

Type of Spike : Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
12/01/93	9307-6MS	C12555-SP	98.60
12/01/93	9307-13MS	C12562-SP	97.90

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 98.3	Above acceptance :	0
Standard Deviation	: .49	Acceptance Criteria :	75-125

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 1,2,4-Trichlorobenzene

Type of Spike : Laboratory Control

12/06/93	SPIKE BLANK	M901	83.70
12/12/93	SPIKE BLANK	M902	68.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 75.9	Above acceptance :	0
Standard Deviation	: 11.10	Acceptance Criteria :	44-142

Type of Spike : Matrix Spike

12/06/93	9307-4MS	M901	120.10
12/12/93	9307-17MS	M902	41.60

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 80.9	Above acceptance :	0
Standard Deviation	: 55.51	Acceptance Criteria :	44-142

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 1,4-Dichlorobenzene

Type of Spike : Laboratory Control

12/06/93	SPIKE BLANK	M901	63.20
12/12/93	SPIKE BLANK	M902	68.20

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 65.7	Above acceptance :	0
Standard Deviation	: 3.54	Acceptance Criteria :	20-124

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 1,4-Dichlorobenzene, continued

Type of Spike : Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
12/06/93	9307-4MS	M901	95.00
12/12/93	9307-17MS	M902	42.10

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 68.6	Above acceptance :	0
Standard Deviation	: 37.41	Acceptance Criteria :	20-124

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 2,4,6-Tribromophenol

Type of Spike : Surrogate

12/06/93	9307-1	M901	97.00
12/06/93	9307-2	M901	91.30
12/06/93	9307-3	M901	77.20
12/06/93	9307-4	M901	48.20
12/06/93	9307-5	M901	68.90
12/09/93	9307-6	M901	73.40
12/09/93	9307-7	M901	103.90
12/09/93	9307-8	M901	99.00
12/09/93	9307-9	M901	136.00
12/10/93	9307-7	M901	111.80
12/10/93	9307-8	M901	24.70
12/10/93	9307-9	M901	59.00
12/12/93	9307-10	M902	42.10
12/12/93	9307-11	M902	59.70
12/12/93	9307-12	M902	50.20
12/12/93	9307-13	M902	47.90
12/13/93	9307-14	M902	49.70
12/19/93	9307-13	M902	46.20
12/19/93	9307-15	M902	36.30
12/19/93	9307-16	M902	37.90
12/19/93	9307-17	M902	42.60
12/20/93	9307-14	M902	33.10

Number of Samples	: 22	Below acceptance :	0
Mean % Recovery	: 65.3	Above acceptance :	1
Standard Deviation	: 29.70	Acceptance Criteria :	19-122

Type of Spike : Surrogate - Blank Sample

12/06/93	BLANK	M901	64.60
12/12/93	BLANK	M902	30.40

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 2,4,6-Tribromophenol, continued

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 47.5	Above acceptance :	0
Standard Deviation	: 24.18	Acceptance Criteria :	19-122

Type of Spike : Surrogate - Laboratory Control

12/06/93	SPIKE BLANK	M901	59.60
12/12/93	SPIKE BLANK	M902	46.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 53.0	Above acceptance :	0
Standard Deviation	: 9.40	Acceptance Criteria :	19-122

Type of Spike : Surrogate - Matrix Spike

12/06/93	9307-4MS	M901	88.50
12/12/93	9307-17MS	M902	46.80

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 67.7	Above acceptance :	0
Standard Deviation	: 29.49	Acceptance Criteria :	19-122

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 2,4-Dinitrotoluene

Type of Spike : Laboratory Control

12/06/93	SPIKE BLANK	M901	121.80
12/12/93	SPIKE BLANK	M902	107.40

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 114.6	Above acceptance :	0
Standard Deviation	: 10.18	Acceptance Criteria :	39-139

Type of Spike : Matrix Spike

12/06/93	9307-4MS	M901	129.70
12/12/93	9307-17MS	M902	106.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 117.9	Above acceptance :	0
Standard Deviation	: 16.76	Acceptance Criteria :	39-139

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 2-Chlorophenol

Type of Spike : Laboratory Control

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
12/06/93	SPIKE BLANK	M901	76.30
12/12/93	SPIKE BLANK	M902	99.80

Number of Samples : 2
Mean % Recovery : 88.1
Standard Deviation : 16.62
Below acceptance : 0
Above acceptance : 0
Acceptance Criteria : 23-134

Type of Spike : Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
12/06/93	9307-4MS	M901	111.20
12/12/93	9307-17MS	M902	59.20

Number of Samples : 2
Mean % Recovery : 85.2
Standard Deviation : 36.77
Below acceptance : 0
Above acceptance : 0
Acceptance Criteria : 23-134

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 2-Fluorobiphenyl

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
12/06/93	9307-1	M901	97.00
12/06/93	9307-2	M901	80.40
12/06/93	9307-3	M901	76.00
12/06/93	9307-4	M901	100.10
12/06/93	9307-5	M901	60.80
12/09/93	9307-6	M901	63.90
12/09/93	9307-7	M901	73.80
12/09/93	9307-8	M901	90.00
12/09/93	9307-9	M901	60.40
12/10/93	9307-7	M901	65.10
12/10/93	9307-8	M901	65.00
12/10/93	9307-9	M901	88.80
12/12/93	9307-10	M902	72.10
12/12/93	9307-11	M902	79.50
12/12/93	9307-12	M902	74.00
12/12/93	9307-13	M902	73.40
12/13/93	9307-14	M902	70.90
12/19/93	9307-13	M902	56.90
12/19/93	9307-15	M902	52.00
12/19/93	9307-16	M902	51.50
12/19/93	9307-17	M902	50.30
12/20/93	9307-14	M902	45.70

* - Value is considered suspect, refer to QC Report () = Data Flag

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 2-Fluorobiphenyl, continued

Number of Samples	: 22	Below acceptance :	0
Mean % Recovery	: 70.3	Above acceptance :	0
Standard Deviation	: 15.03	Acceptance Criteria :	30-115

Type of Spike : Surrogate - Blank Sample

12/06/93	BLANK	M901	75.60
12/12/93	BLANK	M902	36.70

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 56.2	Above acceptance :	0
Standard Deviation	: 27.51	Acceptance Criteria :	30-115

Type of Spike : Surrogate - Laboratory Control

12/06/93	SPIKE BLANK	M901	60.50
12/12/93	SPIKE BLANK	M902	68.70

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 64.6	Above acceptance :	0
Standard Deviation	: 5.80	Acceptance Criteria :	30-115

Type of Spike : Surrogate - Matrix Spike

12/06/93	9307-4MS	M901	82.90
12/12/93	9307-17MS	M902	70.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 76.5	Above acceptance :	0
Standard Deviation	: 9.12	Acceptance Criteria :	30-115

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 2-Fluorophenol

Type of Spike : Surrogate

12/06/93	9307-1	M901	69.90
12/06/93	9307-2	M901	56.40
12/06/93	9307-3	M901	54.50
12/06/93	9307-4	M901	53.50
12/06/93	9307-5	M901	50.80
12/09/93	9307-6	M901	41.70
12/09/93	9307-7	M901	42.50
12/09/93	9307-8	M901	66.20
12/09/93	9307-9	M901	58.00

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 2-Fluorophenol, continued

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
12/10/93	9307-7	M901	50.20
12/10/93	9307-8	M901	66.20
12/10/93	9307-9	M901	84.70
12/12/93	9307-10	M902	61.10
12/12/93	9307-11	M902	61.60
12/12/93	9307-12	M902	53.90
12/12/93	9307-13	M902	58.10
12/13/93	9307-14	M902	58.70
12/19/93	9307-13	M902	41.50
12/19/93	9307-15	M902	35.30
12/19/93	9307-16	M902	37.90
12/19/93	9307-17	M902	34.80
12/20/93	9307-14	M902	30.60

Number of Samples	: 22	Below acceptance :	0
Mean % Recovery	: 53.1	Above acceptance :	0
Standard Deviation	: 13.15	Acceptance Criteria :	25-121

Type of Spike : Surrogate - Blank Sample

12/06/93	BLANK	M901	51.50
12/12/93	BLANK	M902	27.80

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 39.7	Above acceptance :	0
Standard Deviation	: 16.76	Acceptance Criteria :	25-121

Type of Spike : Surrogate - Laboratory Control

12/06/93	SPIKE BLANK	M901	32.00
12/12/93	SPIKE BLANK	M902	48.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 40.2	Above acceptance :	0
Standard Deviation	: 11.53	Acceptance Criteria :	25-121

Type of Spike : Surrogate - Matrix Spike

12/06/93	9307-4MS	M901	50.00
12/12/93	9307-17MS	M902	52.40

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 2-Fluorophenol, continued

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 51.2	Above acceptance :	0
Standard Deviation	: 1.70	Acceptance Criteria :	25-121

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 4-Chloro-3-methylphenol

Type of Spike : Laboratory Control

12/06/93	SPIKE BLANK	M901	98.50
12/12/93	SPIKE BLANK	M902	108.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 103.4	Above acceptance :	0
Standard Deviation	: 6.93	Acceptance Criteria :	22-147

Type of Spike : Matrix Spike

12/06/93	9307-4MS	M901	137.20
12/12/93	9307-17MS	M902	66.80

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 102.0	Above acceptance :	0
Standard Deviation	: 49.78	Acceptance Criteria :	22-147

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 4-Nitrophenol

Type of Spike : Laboratory Control

12/06/93	SPIKE BLANK	M901	53.10
12/12/93	SPIKE BLANK	M902	128.20

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 90.7	Above acceptance :	0
Standard Deviation	: 53.10	Acceptance Criteria :	D-132

Type of Spike : Matrix Spike

12/06/93	9307-4MS	M901	105.30
12/12/93	9307-17MS	M902	79.10

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8270 - Semivolatile Organics
Spiked Analyte : 4-Nitrophenol, continued

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 92.2	Above acceptance :	0
Standard Deviation	: 18.53	Acceptance Criteria :	D-132

Method : SW8270 - Semivolatile Organics
Spiked Analyte : Acenaphthene

Type of Spike : Laboratory Control

12/06/93	SPIKE BLANK	M901	67.80
12/12/93	SPIKE BLANK	M902	73.80

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 70.8	Above acceptance :	0
Standard Deviation	: 4.24	Acceptance Criteria :	47-145

Type of Spike : Matrix Spike

12/06/93	9307-4MS	M901	91.40
12/12/93	9307-17MS	M902	46.60

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 69.0	Above acceptance :	0
Standard Deviation	: 31.68	Acceptance Criteria :	47-145

Method : SW8270 - Semivolatile Organics
Spiked Analyte : Nitrobenzene-d5

Type of Spike : Surrogate

12/06/93	9307-1	M901	96.30
12/06/93	9307-2	M901	81.40
12/06/93	9307-3	M901	71.10
12/06/93	9307-4	M901	119.90
12/06/93	9307-5	M901	73.80
12/09/93	9307-6	M901	107.70
12/09/93	9307-7	M901	127.40
12/09/93	9307-8	M901	130.00
12/09/93	9307-9	M901	126.20
12/10/93	9307-7	M901	182.70
12/10/93	9307-8	M901	107.70
12/10/93	9307-9	M901	138.40
12/12/93	9307-10	M902	87.50
12/12/93	9307-11	M902	92.40
12/12/93	9307-12	M902	90.90

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8270 - Semivolatile Organics
Spiked Analyte : Nitrobenzene-d5, continued

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
12/12/93	9307-13	M902	95.00
12/13/93	9307-14	M902	94.00
12/19/93	9307-13	M902	55.70
12/19/93	9307-15	M902	47.90
12/19/93	9307-16	M902	45.40
12/19/93	9307-17	M902	52.50
12/20/93	9307-14	M902	48.20

Number of Samples	: 22	Below acceptance :	0
Mean % Recovery	: 94.2	Above acceptance :	5
Standard Deviation	: 34.68	Acceptance Criteria :	23-120

Type of Spike : Surrogate - Blank Sample

12/06/93	BLANK	M901	78.60
12/12/93	BLANK	M902	46.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 62.5	Above acceptance :	0
Standard Deviation	: 22.84	Acceptance Criteria :	23-120

Type of Spike : Surrogate - Laboratory Control

12/06/93	SPIKE BLANK	M901	63.50
12/12/93	SPIKE BLANK	M902	83.60

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 73.6	Above acceptance :	0
Standard Deviation	: 14.21	Acceptance Criteria :	23-120

Type of Spike : Surrogate - Matrix Spike

12/06/93	9307-4MS	M901	87.00
12/12/93	9307-17MS	M902	83.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 85.2	Above acceptance :	0
Standard Deviation	: 2.62	Acceptance Criteria :	23-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8270 - Semivolatile Organics
Spiked Analyte : Pentachlorophenol

Type of Spike : Laboratory Control

12/06/93	SPIKE BLANK	M901	12.00
12/12/93	SPIKE BLANK	M902	83.20

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 47.6	Above acceptance :	0
Standard Deviation	: 50.35	Acceptance Criteria :	14-176

Type of Spike : Matrix Spike

12/06/93	9307-4MS	M901	36.00
12/12/93	9307-17MS	M902	46.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 41.2	Above acceptance :	0
Standard Deviation	: 7.28	Acceptance Criteria :	14-176

Method : SW8270 - Semivolatile Organics
Spiked Analyte : Phenol

Type of Spike : Laboratory Control

12/06/93	SPIKE BLANK	M901	64.80
12/12/93	SPIKE BLANK	M902	101.90

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 83.4	Above acceptance :	0
Standard Deviation	: 26.23	Acceptance Criteria :	5-112

Type of Spike : Matrix Spike

12/06/93	9307-4MS	M901	109.90
12/12/93	9307-17MS	M902	65.30

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 87.6	Above acceptance :	0
Standard Deviation	: 31.54	Acceptance Criteria :	5-112

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8270 - Semivolatile Organics
Spiked Analyte : Phenol-d6

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
12/06/93	9307-1	M901	78.20
12/06/93	9307-2	M901	67.90
12/06/93	9307-3	M901	63.70
12/06/93	9307-4	M901	18.50
12/06/93	9307-5	M901	92.30
12/09/93	9307-6	M901	41.80
12/09/93	9307-7	M901	59.10
12/09/93	9307-8	M901	64.10
12/09/93	9307-9	M901	50.40
12/10/93	9307-7	M901	60.70
12/10/93	9307-8	M901	45.50
12/10/93	9307-9	M901	79.30
12/12/93	9307-10	M902	63.30
12/12/93	9307-11	M902	67.20
12/12/93	9307-12	M902	61.00
12/12/93	9307-13	M902	61.70
12/13/93	9307-14	M902	64.00
12/19/93	9307-13	M902	59.10
12/19/93	9307-15	M902	51.20
12/19/93	9307-16	M902	67.60
12/19/93	9307-17	M902	53.30
12/20/93	9307-14	M902	42.90

Number of Samples	: 22	Below acceptance :	1
Mean % Recovery	: 59.7	Above acceptance :	0
Standard Deviation	: 15.04	Acceptance Criteria :	24-113

Type of Spike : Surrogate - Blank Sample

12/06/93	BLANK	M901	53.70
12/12/93	BLANK	M902	32.50

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 43.1	Above acceptance :	0
Standard Deviation	: 14.99	Acceptance Criteria :	24-113

Type of Spike : Surrogate - Laboratory Control

12/06/93	SPIKE BLANK	M901	38.10
12/12/93	SPIKE BLANK	M902	61.50

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 49.8	Above acceptance :	0
Standard Deviation	: 16.55	Acceptance Criteria :	24-113

Method : SW8270 - Semivolatile Organics
Spiked Analyte : Phenol-d6, continued

Type of Spike : Surrogate - Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
12/06/93	9307-4MS	M901	74.50
12/12/93	9307-17MS	M902	66.60

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 70.6	Above acceptance :	0
Standard Deviation	: 5.59	Acceptance Criteria :	24-113

Method : SW8270 - Semivolatile Organics
Spiked Analyte : Pyrene

Type of Spike : Laboratory Control

12/06/93	SPIKE BLANK	M901	52.00
12/12/93	SPIKE BLANK	M902	54.90

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 53.5	Above acceptance :	0
Standard Deviation	: 2.05	Acceptance Criteria :	52-115

Type of Spike : Matrix Spike

12/06/93	9307-4MS	M901	92.90
12/12/93	9307-17MS	M902	27.80

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 60.4	Above acceptance :	0
Standard Deviation	: 46.03	Acceptance Criteria :	52-115

Method : SW8270 - Semivolatile Organics
Spiked Analyte : Terphenyl-d14

Type of Spike : Surrogate

12/06/93	9307-1	M901	116.10
12/06/93	9307-2	M901	105.60
12/06/93	9307-3	M901	47.00
12/06/93	9307-4	M901	117.90
12/06/93	9307-5	M901	79.90
12/09/93	9307-6	M901	83.60
12/09/93	9307-7	M901	113.10
12/09/93	9307-8	M901	126.30
12/09/93	9307-9	M901	63.90
12/10/93	9307-7	M901	73.10

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8270 - Semivolatile Organics
Spiked Analyte : Terphenyl-d14, continued

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
12/10/93	9307-8	M901	91.20
12/10/93	9307-9	M901	89.10
12/12/93	9307-10	M902	442.00
12/12/93	9307-11	M902	133.70
12/12/93	9307-12	M902	79.20
12/12/93	9307-13	M902	92.00
12/13/93	9307-14	M902	185.60
12/19/93	9307-13	M902	73.70
12/19/93	9307-15	M902	73.30
12/19/93	9307-16	M902	59.70
12/19/93	9307-17	M902	62.30
12/20/93	9307-14	M902	48.40

Number of Samples	: 22	Below acceptance :	0
Mean % Recovery	: 107.1	Above acceptance :	2
Standard Deviation	: 81.39	Acceptance Criteria :	18-137

Type of Spike : Surrogate - Blank Sample

12/06/93	BLANK	M901	81.20
12/12/93	BLANK	M902	42.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 61.6	Above acceptance :	0
Standard Deviation	: 27.72	Acceptance Criteria :	18-137

Type of Spike : Surrogate - Laboratory Control

12/06/93	SPIKE BLANK	M901	70.40
12/12/93	SPIKE BLANK	M902	71.50

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 71.0	Above acceptance :	0
Standard Deviation	: .78	Acceptance Criteria :	18-137

Type of Spike : Surrogate - Matrix Spike

12/06/93	9307-4MS	M901	116.10
12/12/93	9307-17MS	M902	65.40

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 90.8	Above acceptance :	0
Standard Deviation	: 35.85	Acceptance Criteria :	18-137

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8270 - Semivolatile Organics
Spiked Analyte : n-Nitroso-di-n-propylamine

Type of Spike : Laboratory Control

12/06/93	SPIKE BLANK	M901	45.60
12/12/93	SPIKE BLANK	M902	51.70

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 48.7	Above acceptance :	0
Standard Deviation	: 4.31	Acceptance Criteria :	D-230

Type of Spike : Matrix Spike

12/06/93	9307-4MS	M901	66.60
12/12/93	9307-17MS	M902	32.10

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 49.4	Above acceptance :	0
Standard Deviation	: 24.40	Acceptance Criteria :	D-230

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 1,2,3,4,6,7,8-HpCDD

Type of Spike : Laboratory Control

02/22/94	SPIKE BLANK	M899	87.00
02/19/94	SPIKE BLANK	M900	87.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 87.0	Above acceptance :	0
Standard Deviation	: .00	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	69.00 (Q)
02/19/94	9307-12MS	M900	86.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 77.5	Above acceptance :	0
Standard Deviation	: 12.02	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
Method : SW8290 - Dioxins and Furans			
Spiked Analyte : 1,2,3,4,6,7,8-HpCDF			
Type of Spike : Laboratory Control			
02/22/94	SPIKE BLANK	M899	106.00
02/19/94	SPIKE BLANK	M900	108.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 107.0	Above acceptance :	0
Standard Deviation	: 1.41	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike			
02/22/94	9307-4MS	M899	89.00
02/19/94	9307-12MS	M900	98.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 93.5	Above acceptance :	0
Standard Deviation	: 6.36	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans			
Spiked Analyte : 1,2,3,4,7,8,9-HpCDF			
Type of Spike : Laboratory Control			
02/22/94	SPIKE BLANK	M899	129.00
02/19/94	SPIKE BLANK	M900	102.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 115.5	Above acceptance :	1
Standard Deviation	: 19.09	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike			
02/22/94	9307-4MS	M899	72.00
02/19/94	9307-12MS	M900	103.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 87.5	Above acceptance :	0
Standard Deviation	: 21.92	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
Method : SW8290 - Dioxins and Furans			
Spiked Analyte : 1,2,3,4,7,8-HxCDD			
Type of Spike : Laboratory Control			
02/22/94	SPIKE BLANK	M899	97.00
02/19/94	SPIKE BLANK	M900	97.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 97.0	Above acceptance :	0
Standard Deviation	: .00	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike			
02/22/94	9307-4MS	M899	92.00
02/19/94	9307-12MS	M900	95.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 93.5	Above acceptance :	0
Standard Deviation	: 2.12	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans			
Spiked Analyte : 1,2,3,4,7,8-HxCDF			
Type of Spike : Laboratory Control			
02/22/94	SPIKE BLANK	M899	95.00
02/19/94	SPIKE BLANK	M900	102.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 98.5	Above acceptance :	0
Standard Deviation	: 4.95	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike			
02/22/94	9307-4MS	M899	92.00
02/19/94	9307-12MS	M900	103.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 97.5	Above acceptance :	0
Standard Deviation	: 7.78	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 1,2,3,6,7,8-HxCDD

Type of Spike : Laboratory Control

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
02/22/94	SPIKE BLANK	M899	101.00
02/19/94	SPIKE BLANK	M900	105.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 103.0	Above acceptance :	0
Standard Deviation	: 2.83	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	101.00
02/19/94	9307-12MS	M900	101.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 101.0	Above acceptance :	0
Standard Deviation	: .00	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 1,2,3,6,7,8-HxCDF

Type of Spike : Laboratory Control

02/22/94	SPIKE BLANK	M899	104.00
02/19/94	SPIKE BLANK	M900	109.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 106.5	Above acceptance :	0
Standard Deviation	: 3.54	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	91.00
02/19/94	9307-12MS	M900	107.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 99.0	Above acceptance :	0
Standard Deviation	: 11.31	Acceptance Criteria :	40-120

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 1,2,3,7,8,9-HxCDD

Type of Spike : Laboratory Control

02/22/94	SPIKE BLANK	M899	106.00
02/19/94	SPIKE BLANK	M900	119.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 112.5	Above acceptance :	0
Standard Deviation	: 9.19	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	81.00
02/19/94	9307-12MS	M900	117.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 99.0	Above acceptance :	0
Standard Deviation	: 25.46	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 1,2,3,7,8,9-HxCDF

Type of Spike : Laboratory Control

02/22/94	SPIKE BLANK	M899	104.00
02/19/94	SPIKE BLANK	M900	108.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 106.0	Above acceptance :	0
Standard Deviation	: 2.83	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	96.00
02/19/94	9307-12MS	M900	103.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 99.5	Above acceptance :	0
Standard Deviation	: 4.95	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 1,2,3,7,8-PeCDD

Type of Spike : Laboratory Control

02/22/94	SPIKE BLANK	M899	102.00
02/19/94	SPIKE BLANK	M900	89.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 95.5	Above acceptance :	0
Standard Deviation	: 9.19	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	90.00
02/19/94	9307-12MS	M900	89.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 89.5	Above acceptance :	0
Standard Deviation	: .71	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 1,2,3,7,8-PeCDF

Type of Spike : Laboratory Control

02/22/94	SPIKE BLANK	M899	97.00
02/19/94	SPIKE BLANK	M900	103.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 100.0	Above acceptance :	0
Standard Deviation	: 4.24	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	96.00
02/19/94	9307-12MS	M900	100.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 98.0	Above acceptance :	0
Standard Deviation	: 2.83	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,4,6,7,8-HpCDD

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/19/94	9307-1	M899	38.00	
02/19/94	9307-2	M899	38.00	
02/19/94	9307-3	M899	34.00	
02/19/94	9307-4	M899	24.00	(Q)
02/19/94	9307-5	M899	20.00	(Q)
02/19/94	9307-6	M899	35.00	
02/19/94	9307-7	M899	24.00	(Q)
02/19/94	9307-7	M899	38.00	
02/19/94	9307-8	M899	28.00	
02/20/94	9307-8	M899	14.00	(Q)
02/20/94	9307-9	M899	13.00	(Q)
02/20/94	9307-9	M899	18.00	(Q)
02/19/94	9307-10	M900	37.00	
02/19/94	9307-11	M900	35.00	
02/19/94	9307-12	M900	7.00	(Q)
02/19/94	9307-12	M900	36.00	
02/19/94	9307-13	M900	33.00	
02/19/94	9307-13	M900	47.00	
02/19/94	9307-14	M900	32.00	
02/19/94	9307-14	M900	42.00	
02/19/94	9307-15	M900	41.00	
02/19/94	9307-16	M900	29.00	

Number of Samples	: 22	Below acceptance :	19
Mean % Recovery	: 30.1	Above acceptance :	0
Standard Deviation	: 10.48	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	2.00	(Q)
02/19/94	PROC BLANK	M900	25.00	

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 13.5	Above acceptance :	0
Standard Deviation	: 16.26	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	44.00
02/19/94	SPIKE BLANK	M900	61.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 52.5	Above acceptance :	0
Standard Deviation	: 12.02	Acceptance Criteria :	40-120

Date Compiled: 19 May 1995 ND = Not Detected NC = Not Calculable NS = Not Specified

* - Value is considered suspect, refer to QC Report () = Data Flag

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,4,6,7,8-HpCDD, continued

Type of Spike : Surrogate - Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/22/94	9307-4MS	M899	36.00	
02/19/94	9307-12MS	M900	52.00	

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 44.0	Above acceptance :	0
Standard Deviation	: 11.31	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,4,6,7,8-HpCDF

Type of Spike : Surrogate

02/19/94	9307-1	M899	30.00	
02/19/94	9307-2	M899	29.00	
02/19/94	9307-3	M899	26.00	
02/19/94	9307-4	M899	19.00	(Q)
02/19/94	9307-5	M899	18.00	(Q)
02/19/94	9307-6	M899	26.00	
02/19/94	9307-7	M899	30.00	
02/19/94	9307-7	M899	25.00	
02/19/94	9307-8	M899	20.00	(Q)
02/20/94	9307-8	M899	14.00	(Q)
02/20/94	9307-9	M899	15.00	(Q)
02/20/94	9307-9	M899	19.00	(Q)
02/19/94	9307-10	M900	36.00	
02/19/94	9307-11	M900	38.00	
02/19/94	9307-12	M900	7.00	(Q)
02/19/94	9307-12	M900	32.00	
02/19/94	9307-13	M900	28.00	
02/19/94	9307-13	M900	41.00	
02/19/94	9307-14	M900	37.00	
02/19/94	9307-14	M900	39.00	
02/19/94	9307-15	M900	39.00	
02/19/94	9307-16	M900	26.00	

Number of Samples	: 22	Below acceptance :	21
Mean % Recovery	: 27.0	Above acceptance :	0
Standard Deviation	: 9.29	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	18.00	(Q)
02/19/94	PROC BLANK	M900	26.00	

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,4,6,7,8-HpCDF, continued

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 22.0	Above acceptance :	0
Standard Deviation	: 5.66	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/22/94	SPIKE BLANK	M899	39.00	
02/19/94	SPIKE BLANK	M900	47.00	

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 43.0	Above acceptance :	0
Standard Deviation	: 5.66	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/22/94	9307-4MS	M899	33.00	
02/19/94	9307-12MS	M900	42.00	

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 37.5	Above acceptance :	0
Standard Deviation	: 6.36	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,4,7,8,9-HpCDF

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/19/94	9307-1	M899	32.00	
02/19/94	9307-2	M899	31.00	
02/19/94	9307-3	M899	29.00	
02/19/94	9307-4	M899	19.00	(Q)
02/19/94	9307-5	M899	15.00	(Q)
02/19/94	9307-6	M899	26.00	
02/19/94	9307-7	M899	28.00	
02/19/94	9307-7	M899	21.00	(Q)
02/19/94	9307-8	M899	19.00	(Q)
02/20/94	9307-8	M899	9.00	(Q)
02/20/94	9307-9	M899	15.00	(Q)
02/20/94	9307-9	M899	8.00	(Q)
02/19/94	9307-10	M900	36.00	
02/19/94	9307-11	M900	36.00	
02/19/94	9307-12	M900	33.00	
02/19/94	9307-12	M900	6.00	(Q)
02/19/94	9307-13	M900	48.00	
02/19/94	9307-13	M900	32.00	
02/19/94	9307-14	M900	43.00	

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,4,7,8,9-HpCDF, continued

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
02/19/94	9307-14	M900	31.00
02/19/94	9307-15	M900	43.00
02/19/94	9307-16	M900	27.00

Number of Samples	: 22	Below acceptance :	19
Mean % Recovery	: 26.7	Above acceptance :	0
Standard Deviation	: 11.58	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	9.00	(Q)
02/19/94	PROC BLANK	M900	20.00	(Q)

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 14.5	Above acceptance :	0
Standard Deviation	: 7.78	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	31.00
02/19/94	SPIKE BLANK	M900	64.00

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 47.5	Above acceptance :	0
Standard Deviation	: 23.33	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Matrix Spike

02/22/94	9307-4MS	M899	35.00
02/19/94	9307-12MS	M900	51.00

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 43.0	Above acceptance :	0
Standard Deviation	: 11.31	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,4,7,8-HxCDD

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/19/94	9307-1	M899	46.00	
02/19/94	9307-2	M899	43.00	
02/19/94	9307-3	M899	39.00	
02/19/94	9307-4	M899	35.00	
02/19/94	9307-5	M899	35.00	
02/19/94	9307-6	M899	45.00	
02/19/94	9307-7	M899	52.00	
02/19/94	9307-7	M899	41.00	
02/19/94	9307-8	M899	37.00	
02/20/94	9307-8	M899	22.00	(Q)
02/20/94	9307-9	M899	33.00	
02/20/94	9307-9	M899	28.00	
02/19/94	9307-10	M900	54.00	
02/19/94	9307-11	M900	51.00	
02/19/94	9307-12	M900	46.00	
02/19/94	9307-12	M900	11.00	(Q)
02/19/94	9307-13	M900	55.00	
02/19/94	9307-13	M900	40.00	
02/19/94	9307-14	M900	82.00	
02/19/94	9307-14	M900	58.00	
02/19/94	9307-15	M900	56.00	
02/19/94	9307-16	M900	39.00	

Number of Samples	: 22	Below acceptance :	9
Mean % Recovery	: 43.1	Above acceptance :	0
Standard Deviation	: 14.39	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	30.00
02/19/94	PROC BLANK	M900	40.00

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 35.0	Above acceptance :	0
Standard Deviation	: 7.07	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	59.00
02/19/94	SPIKE BLANK	M900	64.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 61.5	Above acceptance :	0
Standard Deviation	: 3.54	Acceptance Criteria :	40-120

Date Compiled: 19 May 1995 ND = Not Detected NC = Not Calculable NS = Not Specified

* - Value is considered suspect, refer to QC Report () = Data Flag

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,4,7,8-HxCDD, continued

Type of Spike : Surrogate - Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
02/22/94	9307-4MS	M899	46.00
02/19/94	9307-12MS	M900	55.00

Number of Samples : 2
Mean % Recovery : 50.5
Standard Deviation : 6.36
Below acceptance : 0
Above acceptance : 0
Acceptance Criteria : 40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,4,7,8-HxCDF

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/19/94	9307-1	M899	39.00	
02/19/94	9307-2	M899	35.00	
02/19/94	9307-3	M899	31.00	
02/19/94	9307-4	M899	30.00	
02/19/94	9307-5	M899	26.00	
02/19/94	9307-6	M899	35.00	
02/19/94	9307-7	M899	38.00	
02/19/94	9307-7	M899	43.00	
02/19/94	9307-8	M899	32.00	
02/20/94	9307-8	M899	20.00	(Q)
02/20/94	9307-9	M899	23.00	(Q)
02/20/94	9307-9	M899	28.00	
02/19/94	9307-10	M900	47.00	
02/19/94	9307-11	M900	49.00	
02/19/94	9307-12	M900	39.00	
02/19/94	9307-12	M900	10.00	(Q)
02/19/94	9307-13	M900	51.00	
02/19/94	9307-13	M900	35.00	
02/19/94	9307-14	M900	49.00	
02/19/94	9307-14	M900	78.00	
02/19/94	9307-15	M900	55.00	
02/19/94	9307-16	M900	35.00	

Number of Samples : 22
Mean % Recovery : 37.6
Standard Deviation : 14.09
Below acceptance : 15
Above acceptance : 0
Acceptance Criteria : 40-120

Type of Spike : Surrogate - Blank Sample

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
02/19/94	PROC BLANK	M899	26.00
02/19/94	PROC BLANK	M900	44.00

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,4,7,8-HxCDF, continued

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 35.0	Above acceptance :	0
Standard Deviation	: 12.73	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	53.00	
02/19/94	SPIKE BLANK	M900	55.00	

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 54.0	Above acceptance :	0
Standard Deviation	: 1.41	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Matrix Spike

02/22/94	9307-4MS	M899	42.00	
02/19/94	9307-12MS	M900	47.00	

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 44.5	Above acceptance :	0
Standard Deviation	: 3.54	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,6,7,8-HxCDD

Type of Spike : Surrogate

02/19/94	9307-1	M899	35.00	
02/19/94	9307-2	M899	31.00	
02/19/94	9307-3	M899	29.00	
02/19/94	9307-4	M899	25.00	
02/19/94	9307-5	M899	27.00	
02/19/94	9307-6	M899	31.00	
02/19/94	9307-7	M899	39.00	
02/19/94	9307-7	M899	32.00	
02/19/94	9307-8	M899	28.00	
02/20/94	9307-8	M899	18.00	(Q)
02/20/94	9307-9	M899	24.00	(Q)
02/20/94	9307-9	M899	21.00	(Q)
02/19/94	9307-10	M900	40.00	
02/19/94	9307-11	M900	37.00	
02/19/94	9307-12	M900	8.00	(Q)
02/19/94	9307-12	M900	35.00	
02/19/94	9307-13	M900	41.00	
02/19/94	9307-13	M900	33.00	
02/19/94	9307-14	M900	55.00	

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,6,7,8-HxCDD, continued

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
02/19/94	9307-14	M900	45.00
02/19/94	9307-15	M900	47.00
02/19/94	9307-16	M900	29.00

Number of Samples	: 22	Below acceptance :	17
Mean % Recovery	: 32.3	Above acceptance :	0
Standard Deviation	: 10.30	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	23.00	(Q)
02/19/94	PROC BLANK	M900	32.00	

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 27.5	Above acceptance :	0
Standard Deviation	: 6.36	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	44.00
02/19/94	SPIKE BLANK	M900	50.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 47.0	Above acceptance :	0
Standard Deviation	: 4.24	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Matrix Spike

02/22/94	9307-4MS	M899	41.00
02/19/94	9307-12MS	M900	43.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 42.0	Above acceptance :	0
Standard Deviation	: 1.41	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,6,7,8-HxCDF

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/19/94	9307-1	M899	29.00	
02/19/94	9307-2	M899	25.00	
02/19/94	9307-3	M899	23.00	(Q)
02/19/94	9307-4	M899	21.00	(Q)
02/19/94	9307-5	M899	20.00	(Q)
02/19/94	9307-6	M899	25.00	
02/19/94	9307-7	M899	28.00	
02/19/94	9307-7	M899	33.00	
02/19/94	9307-8	M899	24.00	(Q)
02/20/94	9307-8	M899	15.00	(Q)
02/20/94	9307-9	M899	23.00	(Q)
02/20/94	9307-9	M899	18.00	(Q)
02/19/94	9307-10	M900	37.00	
02/19/94	9307-11	M900	36.00	
02/19/94	9307-12	M900	7.00	(Q)
02/19/94	9307-12	M900	31.00	
02/19/94	9307-13	M900	38.00	
02/19/94	9307-13	M900	26.00	
02/19/94	9307-14	M900	60.00	
02/19/94	9307-14	M900	38.00	
02/19/94	9307-15	M900	43.00	
02/19/94	9307-16	M900	26.00	

Number of Samples	: 22	Below acceptance :	20
Mean % Recovery	: 28.5	Above acceptance :	0
Standard Deviation	: 11.00	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	20.00	(Q)
02/19/94	PROC BLANK	M900	33.00	

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 26.5	Above acceptance :	0
Standard Deviation	: 9.19	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	37.00
02/19/94	SPIKE BLANK	M900	43.00

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 40.0	Above acceptance :	0
Standard Deviation	: 4.24	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,6,7,8-HxCDF, continued

Type of Spike : Surrogate - Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
02/22/94	9307-4MS	M899	39.00
02/19/94	9307-12MS	M900	37.00

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 38.0	Above acceptance :	0
Standard Deviation	: 1.41	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,7,8,9-HxCDF

Type of Spike : Surrogate

02/19/94	9307-1	M899	31.00	
02/19/94	9307-2	M899	26.00	
02/19/94	9307-3	M899	24.00	(Q)
02/19/94	9307-4	M899	19.00	(Q)
02/19/94	9307-5	M899	25.00	(Q)
02/19/94	9307-6	M899	29.00	
02/19/94	9307-7	M899	33.00	
02/19/94	9307-7	M899	27.00	
02/19/94	9307-8	M899	23.00	(Q)
02/20/94	9307-8	M899	16.00	(Q)
02/20/94	9307-9	M899	22.00	(Q)
02/20/94	9307-9	M899	18.00	(Q)
02/19/94	9307-10	M900	39.00	
02/19/94	9307-11	M900	37.00	
02/19/94	9307-12	M900	6.00	(Q)
02/19/94	9307-12	M900	31.00	
02/19/94	9307-13	M900	28.00	
02/19/94	9307-13	M900	40.00	
02/19/94	9307-14	M900	38.00	
02/19/94	9307-14	M900	37.00	
02/19/94	9307-15	M900	42.00	
02/19/94	9307-16	M900	28.00	

Number of Samples	: 22	Below acceptance :	20
Mean % Recovery	: 28.1	Above acceptance :	0
Standard Deviation	: 8.91	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	17.00	(Q)
02/19/94	PROC BLANK	M900	31.00	

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,7,8,9-HxCDF, continued

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 24.0	Above acceptance :	0
Standard Deviation	: 9.90	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	38.00	
02/19/94	SPIKE BLANK	M900	44.00	

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 41.0	Above acceptance :	0
Standard Deviation	: 4.24	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Matrix Spike

02/22/94	9307-4MS	M899	28.00	
02/19/94	9307-12MS	M900	40.00	

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 34.0	Above acceptance :	0
Standard Deviation	: 8.49	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,7,8-PeCDD

Type of Spike : Surrogate

02/19/94	9307-1	M899	45.00	
02/19/94	9307-2	M899	44.00	
02/19/94	9307-3	M899	40.00	
02/19/94	9307-4	M899	29.00	
02/19/94	9307-5	M899	39.00	
02/19/94	9307-6	M899	46.00	
02/19/94	9307-7	M899	45.00	
02/19/94	9307-7	M899	35.00	
02/19/94	9307-8	M899	32.00	
02/20/94	9307-8	M899	19.00	(Q)
02/20/94	9307-9	M899	28.00	
02/20/94	9307-9	M899	21.00	(Q)
02/19/94	9307-10	M900	56.00	
02/19/94	9307-11	M900	51.00	
02/19/94	9307-12	M900	44.00	
02/19/94	9307-12	M900	7.00	(Q)
02/19/94	9307-13	M900	57.00	
02/19/94	9307-13	M900	41.00	
02/19/94	9307-14	M900	50.00	

* - Value is considered suspect, refer to QC Report () = Data Flag

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,7,8-PeCDD, continued

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
02/19/94	9307-14	M900	32.00
02/19/94	9307-15	M900	50.00
02/19/94	9307-16	M900	37.00

Number of Samples	: 22	Below acceptance :	10
Mean % Recovery	: 38.5	Above acceptance :	0
Standard Deviation	: 12.45	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	26.00
02/19/94	PROC BLANK	M900	35.00

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 30.5	Above acceptance :	0
Standard Deviation	: 6.36	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	62.00
02/19/94	SPIKE BLANK	M900	60.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 61.0	Above acceptance :	0
Standard Deviation	: 1.41	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Matrix Spike

02/22/94	9307-4MS	M899	47.00
02/19/94	9307-12MS	M900	55.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 51.0	Above acceptance :	0
Standard Deviation	: 5.66	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,7,8-PeCDF

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/19/94	9307-1	M899	37.00	
02/19/94	9307-2	M899	36.00	
02/19/94	9307-3	M899	34.00	
02/19/94	9307-4	M899	26.00	
02/19/94	9307-5	M899	31.00	
02/19/94	9307-6	M899	36.00	
02/19/94	9307-7	M899	37.00	
02/19/94	9307-7	M899	32.00	
02/19/94	9307-8	M899	27.00	
02/20/94	9307-8	M899	17.00	(Q)
02/20/94	9307-9	M899	23.00	(Q)
02/20/94	9307-9	M899	18.00	(Q)
02/19/94	9307-10	M900	46.00	
02/19/94	9307-11	M900	46.00	
02/19/94	9307-12	M900	7.00	(Q)
02/19/94	9307-12	M900	39.00	
02/19/94	9307-13	M900	35.00	
02/19/94	9307-13	M900	53.00	
02/19/94	9307-14	M900	41.00	
02/19/94	9307-14	M900	30.00	
02/19/94	9307-15	M900	46.00	
02/19/94	9307-16	M900	31.00	

Number of Samples	: 22	Below acceptance :	17
Mean % Recovery	: 33.1	Above acceptance :	0
Standard Deviation	: 10.74	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	22.00	(Q)
02/19/94	PROC BLANK	M900	35.00	

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 28.5	Above acceptance :	0
Standard Deviation	: 9.19	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	58.00
02/19/94	SPIKE BLANK	M900	46.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 52.0	Above acceptance :	0
Standard Deviation	: 8.49	Acceptance Criteria :	40-120

Date Compiled: 19 May 1995 ND = Not Detected NC = Not Calculable NS = Not Specified

* - Value is considered suspect, refer to QC Report () = Data Flag

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-1,2,3,7,8-PeCDF, continued

Type of Spike : Surrogate - Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
02/22/94	9307-4MS	M899	47.00
02/19/94	9307-12MS	M900	44.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 45.5	Above acceptance :	0
Standard Deviation	: 2.12	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-2,3,4,6,7,8-HxCDF

Type of Spike : Surrogate

02/19/94	9307-1	M899	28.00	
02/19/94	9307-2	M899	27.00	
02/19/94	9307-3	M899	22.00	(Q)
02/19/94	9307-4	M899	17.00	(Q)
02/19/94	9307-5	M899	12.00	(Q)
02/19/94	9307-6	M899	22.00	(Q)
02/19/94	9307-7	M899	26.00	
02/19/94	9307-7	M899	17.00	(Q)
02/19/94	9307-8	M899	22.00	(Q)
02/20/94	9307-8	M899	24.00	(Q)
02/20/94	9307-9	M899	8.00	(Q)
02/20/94	9307-9	M899	14.00	(Q)
02/19/94	9307-10	M900	36.00	
02/19/94	9307-11	M900	36.00	
02/19/94	9307-12	M900	3.00	(Q)
02/19/94	9307-12	M900	31.00	
02/19/94	9307-13	M900	37.00	
02/19/94	9307-13	M900	28.00	
02/19/94	9307-14	M900	37.00	
02/19/94	9307-14	M900	30.00	
02/19/94	9307-15	M900	38.00	
02/19/94	9307-16	M900	24.00	(Q)

Number of Samples	: 22	Below acceptance :	22
Mean % Recovery	: 24.5	Above acceptance :	0
Standard Deviation	: 9.75	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	10.00	(Q)
02/19/94	PROC BLANK	M900	25.00	(Q)

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-2,3,4,6,7,8-HxCDF, continued

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 17.5	Above acceptance :	0
Standard Deviation	: 10.61	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/22/94	SPIKE BLANK	M899	39.00	
02/19/94	SPIKE BLANK	M900	55.00	

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 47.0	Above acceptance :	0
Standard Deviation	: 11.31	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/22/94	9307-4MS	M899	30.00	
02/19/94	9307-12MS	M900	45.00	

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 37.5	Above acceptance :	0
Standard Deviation	: 10.61	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-2,3,4,7,8-PeCDF

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/19/94	9307-1	M899	35.00	
02/19/94	9307-2	M899	34.00	
02/19/94	9307-3	M899	32.00	
02/19/94	9307-4	M899	26.00	
02/19/94	9307-5	M899	34.00	
02/19/94	9307-6	M899	36.00	
02/19/94	9307-7	M899	31.00	
02/19/94	9307-7	M899	38.00	
02/19/94	9307-8	M899	25.00	
02/20/94	9307-8	M899	19.00	(Q)
02/20/94	9307-9	M899	20.00	(Q)
02/20/94	9307-9	M899	26.00	
02/19/94	9307-10	M900	47.00	
02/19/94	9307-11	M900	46.00	
02/19/94	9307-12	M900	39.00	
02/19/94	9307-12	M900	7.00	(Q)
02/19/94	9307-13	M900	54.00	
02/19/94	9307-13	M900	36.00	
02/19/94	9307-14	M900	42.00	

* - Value is considered suspect, refer to QC Report () = Data Flag

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-2,3,4,7,8-PeCDF, continued

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
02/19/94	9307-14	M900	32.00
02/19/94	9307-15	M900	44.00
02/19/94	9307-16	M900	31.00

Number of Samples	: 22	Below acceptance :	17
Mean % Recovery	: 33.4	Above acceptance :	0
Standard Deviation	: 10.47	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	25.00	(Q)
02/19/94	PROC BLANK	M900	34.00	

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 29.5	Above acceptance :	0
Standard Deviation	: 6.36	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	57.00
02/19/94	SPIKE BLANK	M900	46.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 51.5	Above acceptance :	0
Standard Deviation	: 7.78	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Matrix Spike

02/22/94	9307-4MS	M899	44.00
02/19/94	9307-12MS	M900	44.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 44.0	Above acceptance :	0
Standard Deviation	: .00	Acceptance Criteria :	40-120

TABLE B2 DETAILED LISTING OF SPIKE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-2,3,7,8,-TCDF

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/19/94	9307-1	M899	53.00	
02/19/94	9307-2	M899	44.00	
02/19/94	9307-3	M899	44.00	
02/19/94	9307-4	M899	36.00	
02/19/94	9307-5	M899	45.00	
02/19/94	9307-6	M899	47.00	
02/19/94	9307-7	M899	45.00	
02/19/94	9307-7	M899	51.00	
02/19/94	9307-8	M899	35.00	
02/20/94	9307-8	M899	26.00	
02/20/94	9307-9	M899	32.00	
02/20/94	9307-9	M899	30.00	
02/19/94	9307-10	M900	52.00	
02/19/94	9307-11	M900	53.00	
02/19/94	9307-12	M900	49.00	
02/19/94	9307-12	M900	8.00	(Q)
02/19/94	9307-13	M900	61.00	
02/19/94	9307-13	M900	48.00	
02/19/94	9307-14	M900	56.00	
02/19/94	9307-14	M900	49.00	
02/19/94	9307-15	M900	54.00	
02/19/94	9307-16	M900	40.00	

Number of Samples	: 22	Below acceptance :	6
Mean % Recovery	: 43.5	Above acceptance :	0
Standard Deviation	: 11.96	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	36.00
02/19/94	PROC BLANK	M900	46.00

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 41.0	Above acceptance :	0
Standard Deviation	: 7.07	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	48.00
02/19/94	SPIKE BLANK	M900	65.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 56.5	Above acceptance :	0
Standard Deviation	: 12.02	Acceptance Criteria :	40-120

Date Compiled: 19 May 1995 ND = Not Detected NC = Not Calculable NS = Not Specified

* - Value is considered suspect, refer to QC Report () = Data Flag

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-2,3,7,8,-TCDF, continued

Type of Spike : Surrogate - Matrix Spike

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
02/22/94	9307-4MS	M899	33.00
02/19/94	9307-12MS	M900	54.00

Number of Samples : 2
Mean % Recovery : 43.5
Standard Deviation : 14.85
Below acceptance : 1
Above acceptance : 0
Acceptance Criteria : 40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-2,3,7,8-TCDD

Type of Spike : Surrogate

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY	
02/19/94	9307-1	M899	43.00	
02/19/94	9307-2	M899	35.00	
02/19/94	9307-3	M899	37.00	
02/19/94	9307-4	M899	29.00	
02/19/94	9307-5	M899	34.00	
02/19/94	9307-6	M899	39.00	
02/19/94	9307-7	M899	43.00	
02/19/94	9307-7	M899	35.00	
02/19/94	9307-8	M899	30.00	
02/20/94	9307-8	M899	18.00	(Q)
02/20/94	9307-9	M899	21.00	(Q)
02/20/94	9307-9	M899	22.00	(Q)
02/19/94	9307-10	M900	47.00	
02/19/94	9307-11	M900	53.00	
02/19/94	9307-12	M900	8.00	(Q)
02/19/94	9307-12	M900	44.00	
02/19/94	9307-13	M900	41.00	
02/19/94	9307-13	M900	60.00	
02/19/94	9307-14	M900	50.00	
02/19/94	9307-14	M900	42.00	
02/19/94	9307-15	M900	55.00	
02/19/94	9307-16	M900	35.00	

Number of Samples : 22
Mean % Recovery : 37.3
Standard Deviation : 12.65
Below acceptance : 12
Above acceptance : 0
Acceptance Criteria : 40-120

Type of Spike : Surrogate - Blank Sample

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY
02/19/94	PROC BLANK	M899	30.00
02/19/94	PROC BLANK	M900	43.00

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-2,3,7,8-TCDD, continued

Number of Samples	: 2	Below acceptance :	1
Mean % Recovery	: 36.5	Above acceptance :	0
Standard Deviation	: 9.19	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	55.00
02/19/94	SPIKE BLANK	M900	58.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 56.5	Above acceptance :	0
Standard Deviation	: 2.12	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Matrix Spike

02/22/94	9307-4MS	M899	41.00
02/19/94	9307-12MS	M900	47.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 44.0	Above acceptance :	0
Standard Deviation	: 4.24	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-OCDD

Type of Spike : Surrogate

02/19/94	9307-1	M899	21.00	(Q)
02/19/94	9307-2	M899	24.00	(Q)
02/19/94	9307-3	M899	21.00	(Q)
02/19/94	9307-4	M899	8.00	(Q)
02/19/94	9307-5	M899	6.00	(Q)
02/19/94	9307-6	M899	18.00	(Q)
02/19/94	9307-7	M899	21.00	(Q)
02/19/94	9307-7	M899	10.00	(Q)
02/19/94	9307-8	M899	14.00	(Q)
02/20/94	9307-8	M899	5.00	(Q)
02/20/94	9307-9	M899	2.00	(Q)
02/20/94	9307-9	M899	8.00	(Q)
02/19/94	9307-10	M900	18.00	(Q)
02/19/94	9307-11	M900	20.00	(Q)
02/19/94	9307-12	M900	14.00	(Q)
02/19/94	9307-12	M900	2.00	(Q)
02/19/94	9307-13	M900	11.00	(Q)
02/19/94	9307-14	M900	5.00	(Q)
02/19/94	9307-15	M900	18.00	(Q)

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 13C-OCDD, continued

Type of Spike : Surrogate

02/19/94	9307-16	M900	15.00 (Q)

Number of Samples	: 20	Below acceptance :	20
Mean % Recovery	: 13.1	Above acceptance :	0
Standard Deviation	: 6.98	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Blank Sample

02/19/94	PROC BLANK	M899	4.00 (Q)
02/19/94	PROC BLANK	M900	6.00 (Q)

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 5.0	Above acceptance :	0
Standard Deviation	: 1.41	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Laboratory Control

02/22/94	SPIKE BLANK	M899	17.00 (Q)
02/19/94	SPIKE BLANK	M900	34.00

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 25.5	Above acceptance :	0
Standard Deviation	: 12.02	Acceptance Criteria :	40-120

Type of Spike : Surrogate - Matrix Spike

02/22/94	9307-4MS	M899	17.00 (Q)
02/19/94	9307-12MS	M900	27.00

Number of Samples	: 2	Below acceptance :	2
Mean % Recovery	: 22.0	Above acceptance :	0
Standard Deviation	: 7.07	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 2,3,4,6,7,8-HxCDF

Type of Spike : Laboratory Control

02/22/94	SPIKE BLANK	M899	110.00
02/19/94	SPIKE BLANK	M900	107.00

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 2,3,4,6,7,8-HxCDF, continued

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 108.5	Above acceptance :	0
Standard Deviation	: 2.12	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	79.00
02/19/94	9307-12MS	M900	105.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 92.0	Above acceptance :	0
Standard Deviation	: 18.38	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 2,3,4,7,8-PeCDF

Type of Spike : Laboratory Control

02/22/94	SPIKE BLANK	M899	122.00
02/19/94	SPIKE BLANK	M900	122.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 122.0	Above acceptance :	2
Standard Deviation	: .00	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	111.00
02/19/94	9307-12MS	M900	119.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 115.0	Above acceptance :	0
Standard Deviation	: 5.66	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 2,3,7,8-TCDD

Type of Spike : Laboratory Control

02/22/94	SPIKE BLANK	M899	104.00
02/19/94	SPIKE BLANK	M900	117.00

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 2,3,7,8-TCDD, continued

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 110.5	Above acceptance :	0
Standard Deviation	: 9.19	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	85.00
02/19/94	9307-12MS	M900	125.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 105.0	Above acceptance :	1
Standard Deviation	: 28.28	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : 2,3,7,8-TCDF

Type of Spike : Laboratory Control

02/22/94	SPIKE BLANK	M899	123.00
02/19/94	SPIKE BLANK	M900	83.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 103.0	Above acceptance :	1
Standard Deviation	: 28.28	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	131.00
02/19/94	9307-12MS	M900	83.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 107.0	Above acceptance :	1
Standard Deviation	: 33.94	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : OCDD

Type of Spike : Laboratory Control

02/22/94	SPIKE BLANK	M899	100.00
02/19/94	SPIKE BLANK	M900	117.00

DATE ANALYZED	SAMPLE ID	BATCH ID	% RECOVERY

Method : SW8290 - Dioxins and Furans
Spiked Analyte : OCDD, continued

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 108.5	Above acceptance :	0
Standard Deviation	: 12.02	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	106.00
02/19/94	9307-12MS	M900	117.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 111.5	Above acceptance :	0
Standard Deviation	: 7.78	Acceptance Criteria :	40-120

Method : SW8290 - Dioxins and Furans
Spiked Analyte : OCDF

Type of Spike : Laboratory Control

02/22/94	SPIKE BLANK	M899	120.00
02/19/94	SPIKE BLANK	M900	121.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 120.5	Above acceptance :	1
Standard Deviation	: .71	Acceptance Criteria :	40-120

Type of Spike : Matrix Spike

02/22/94	9307-4MS	M899	117.00
02/19/94	9307-12MS	M900	125.00

Number of Samples	: 2	Below acceptance :	0
Mean % Recovery	: 121.0	Above acceptance :	1
Standard Deviation	: 5.66	Acceptance Criteria :	40-120

ABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value		Duplicate Value		Mean Value	Standard Deviation	RPD (%)
Method = E249.2 - Nickel									
Type = Laboratory Control (%)									
Nickel	DORM-A	DORM-B	96.67		91.67		94.17	3.5	5
Nickel	LCS-D	LCS-E	102.3		97		99.65	3.7	5
Type = Laboratory Replicate (mg/Kg)									
Nickel	9307-12	9307-12	0.07	(J)	0.08	(J)	0.075	0.0	13
Nickel	9307-5	9307-5	0.09	(J)	0.08	(J)	0.085	0.0	12
Method = E272.2 - Silver									
Type = Laboratory Control (%)									
Silver	LCS-D	LCS-E	94.7		98.7		96.7	2.8	4
Type = Laboratory Replicate (mg/Kg)									
Silver	9307-12	9307-12	0.21		0.21		0.21	0.0	0
Silver	9307-5	9307-5	1.04		1		1.02	0.0	4
Method = SOP-9017 - Chlorinated Pesticides and PCBs									
Type = Laboratory Replicate (ng/g)									
2,4'-DDD	9307-15	9307-15	1.49	(J)	< 1.4		NC	NC	NC
2,4'-DDD	9307-16	9307-16	0.79	(J)	< 2.22		NC	NC	NC
2,4'-DDD	9307-17	9307-17	< 1.4		0.3	(J)	NC	NC	NC
2,4'-DDD	9307-7	9307-7	< 4.37		0.21	(J)	NC	NC	NC
2,4'-DDD	9307-8	9307-8	0.05	(J)	< 4.46		NC	NC	NC
2,4'-DDD	9307-9	9307-9	0.05	(J)	< 5.1		NC	NC	NC
2,4'-DDE	9307-15	9307-15	5.39		6.27		5.83	0.6	15
2,4'-DDE	9307-16	9307-16	7.24		< 1.02		NC	NC	NC
2,4'-DDE	9307-17	9307-17	< 0.64		0.07	(J)	NC	NC	NC
2,4'-DDE	9307-7	9307-7	< 2.01		< 2.12		NC	NC	NC
2,4'-DDE	9307-8	9307-8	< 1.85		< 2.05		NC	NC	NC
2,4'-DDE	9307-9	9307-9	4.55		18.71		11.63	10.0	122

Compiled: 20 May 1995

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ABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value		Duplicate Value		Mean Value	Standard Deviation	RPD (%)
2,4'-DDT	9307-15	9307-15	< 1.24		< 1.02		NC	NC	NC
Method = SOP-9017 - Chlorinated Pesticides and PCBs, cont.									
Type = Laboratory Replicate (ng/g), cont.									
2,4'-DDT	9307-16	9307-16	< 1.48		< 1.62		NC	NC	NC
2,4'-DDT	9307-17	9307-17	2.2		< 1.02		NC	NC	NC
2,4'-DDT	9307-7	9307-7	< 3.18		< 3.37		NC	NC	NC
2,4'-DDT	9307-8	9307-8	0.75	(J)	0.5	(J)	0.625	0.2	40
2,4'-DDT	9307-9	9307-9	< 3		< 3.72		NC	NC	NC
4,4'-DDD	9307-15	9307-15	15.7		3.47		9.585	8.6	128
4,4'-DDD	9307-16	9307-16	5.88		3.29		4.585	1.8	56
4,4'-DDD	9307-17	9307-17	8.92		< 0.83		NC	NC	NC
4,4'-DDD	9307-7	9307-7	11.1		8.23		9.665	2.0	30
4,4'-DDD	9307-8	9307-8	4.18		2.94		3.56	0.9	35
4,4'-DDD	9307-9	9307-9	8.99		7.49		8.24	1.1	18
4,4'-DDE	9307-15	9307-15	15.09		52.19		33.64	26.2	110
4,4'-DDE	9307-16	9307-16	12.51		93.59		53.05	57.3	153
4,4'-DDE	9307-17	9307-17	513.3		80.53		296.925	306.0	146
4,4'-DDE	9307-7	9307-7	78.89		122.11		100.5	30.6	43
4,4'-DDE	9307-8	9307-8	139.1		75.4		107.295	45.1	59
4,4'-DDE	9307-9	9307-9	92.14		97.21		94.675	3.6	5
4,4'-DDT	9307-15	9307-15	0.21	(J)	< 0.83		NC	NC	NC
4,4'-DDT	9307-16	9307-16	0.13	(J)	< 1.31		NC	NC	NC
4,4'-DDT	9307-17	9307-17	2.57		< 0.82		NC	NC	NC
4,4'-DDT	9307-7	9307-7	< 2.58		1.16	(J)	NC	NC	NC
4,4'-DDT	9307-8	9307-8	< 2.38		0.75	(J)	NC	NC	NC
4,4'-DDT	9307-9	9307-9	< 2.43		1.96	(J)	NC	NC	NC
Aldrin	9307-15	9307-15	< 1.3		0.24	(J)	NC	NC	NC
Aldrin	9307-16	9307-16	< 1.55		0.35	(J)	NC	NC	NC
Aldrin	9307-17	9307-17	< 1.07		0.05	(J)	NC	NC	NC
Aldrin	9307-7	9307-7	< 3.34		0.21	(J)	NC	NC	NC
Aldrin	9307-8	9307-8	< 3.08		< 3.41		NC	NC	NC
Aldrin	9307-9	9307-9	< 3.15		< 3.9		NC	NC	NC
Dieldrin	9307-15	9307-15	< 1.75		0.82	(J)	NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLDMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value		Duplicate Value		Mean Value	Standard Deviation	RPD (%)
Dieldrin	9307-16	9307-16	< 2.09		1.4	(J)	NC	NC	NC

Method = SOP-9017 - Chlorinated Pesticides and PCBs, cont.

Type = Laboratory Replicate (ng/g), cont.

Dieldrin	9307-17	9307-17	6.45		5.77		6.11	0.5	11
Dieldrin	9307-7	9307-7	0.33	(J)	7.32		3.825	4.9	183
Dieldrin	9307-8	9307-8	6.57		5.33		5.95	0.9	21
Dieldrin	9307-9	9307-9	4.7		0.41	(J)	2.555	3.0	168
Endrin	9307-15	9307-15	< 1.29		0.79	(J)	NC	NC	NC
Endrin	9307-16	9307-16	< 1.54		< 1.69		NC	NC	NC
Endrin	9307-17	9307-17	< 1.07		2.15		NC	NC	NC
Endrin	9307-7	9307-7	< 3.32		1.41	(J)	NC	NC	NC
Endrin	9307-8	9307-8	< 3.06		< 3.39		NC	NC	NC
Endrin	9307-9	9307-9	0.21	(J)	0.21	(J)	0.21	0.0	0
HCB	9307-15	9307-15	0.46	(J)	0.37	(J)	0.415	0.1	22
HCB	9307-16	9307-16	0.48	(J)	0.57	(J)	0.525	0.1	17
HCB	9307-17	9307-17	1.17		3.37		2.27	1.6	97
HCB	9307-7	9307-7	1.7	(J)	2.99	(J)	2.345	0.9	55
HCB	9307-8	9307-8	2.24	(J)	1.74	(J)	1.99	0.4	25
HCB	9307-9	9307-9	1.34	(J)	1.6	(J)	1.47	0.2	18
Heptachlor	9307-15	9307-15	0.15	(J)	< 1.12		NC	NC	NC
Heptachlor	9307-16	9307-16	< 1.63		< 1.78		NC	NC	NC
Heptachlor	9307-17	9307-17	< 1.12		0.1	(J)	NC	NC	NC
Heptachlor	9307-7	9307-7	< 3.5		< 3.7		NC	NC	NC
Heptachlor	9307-8	9307-8	< 3.23		< 3.58		NC	NC	NC
Heptachlor	9307-9	9307-9	< 3.3		< 4.09		NC	NC	NC
Heptachlor epoxide	9307-15	9307-15	< 1.52		< 1.25		NC	NC	NC
Heptachlor epoxide	9307-16	9307-16	< 1.81		< 1.99		NC	NC	NC
Heptachlor epoxide	9307-17	9307-17	< 1.25		< 1.25		NC	NC	NC
Heptachlor epoxide	9307-7	9307-7	< 3.9		< 4.12		NC	NC	NC
Heptachlor epoxide	9307-8	9307-8	< 3.59		< 3.98		NC	NC	NC
Heptachlor epoxide	9307-9	9307-9	< 3.68		< 4.56		NC	NC	NC
Mirex	9307-15	9307-15	0.06	(J)	< 1.19		NC	NC	NC
Mirex	9307-16	9307-16	< 1.72		< 1.88		NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value		Duplicate Value		Mean Value	Standard Deviation	RPD (%)
Mirex	9307-17	9307-17	0.1	(J)	< 1.18		NC	NC	NC

Method = SOP-9017 - Chlorinated Pesticides and PCBs, cont.

Type = Laboratory Replicate (ng/g), cont.

Mirex	9307-7	9307-7	< 3.69		0.37	(J)	NC	NC	NC
Mirex	9307-8	9307-8	< 3.4		< 3.77		NC	NC	NC
Mirex	9307-9	9307-9	< 3.48		< 4.32		NC	NC	NC
Oxychlordane	9307-15	9307-15	2.04		11.02		6.53	6.3	138
Oxychlordane	9307-16	9307-16	1.71	(J)	17.69		9.7	11.3	165
Oxychlordane	9307-17	9307-17	63.14		88.63		75.885	18.0	34
Oxychlordane	9307-7	9307-7	9.02		14.8		11.91	4.1	49
Oxychlordane	9307-8	9307-8	13.65		8.86		11.255	3.4	43
Oxychlordane	9307-9	9307-9	10.34		10.9		10.62	0.4	5
Total BHCs	9307-15	9307-15	2.83	(J)	0.58	(J)	1.705	1.6	132
Total BHCs	9307-16	9307-16	7.33		0.7	(J)	4.015	4.7	165
Total BHCs	9307-17	9307-17	0.8	(J)	32.68		16.74	22.5	190
Total BHCs	9307-7	9307-7	1.54	(J)	7.77	(J)	4.655	4.4	134
Total BHCs	9307-8	9307-8	3.24	(J)	2.59	(J)	2.915	0.5	22
Total BHCs	9307-9	9307-9	1.34	(J)	3.26	(J)	2.3	1.4	83
Total Chlordanes	9307-15	9307-15	7.46		11.23		9.345	2.7	40
Total Chlordanes	9307-16	9307-16	5.62		18.22		11.92	8.9	106
Total Chlordanes	9307-17	9307-17	64.62		99.15		81.885	24.4	42
Total Chlordanes	9307-7	9307-7	12.18		23.98		18.08	8.3	65
Total Chlordanes	9307-8	9307-8	18.08		12.4		15.24	4.0	37
Total Chlordanes	9307-9	9307-9	14.26		15.3		14.78	0.7	7
Total DDTs	9307-15	9307-15	37.89		61.93		49.91	17.0	48
Total DDTs	9307-16	9307-16	26.55		96.88		61.715	49.7	114
Total DDTs	9307-17	9307-17	527.0		80.91		303.96	315.4	147
Total DDTs	9307-7	9307-7	89.98		131.71		110.845	29.5	38
Total DDTs	9307-8	9307-8	144.1		79.58		111.875	45.7	58
Total DDTs	9307-9	9307-9	105.7		125.7		115.72	14.1	17
Total Decachlorobiphenyls	9307-15	9307-15	< 1.55		< 1.28		NC	NC	NC
Total Decachlorobiphenyls	9307-16	9307-16	< 1.85		< 2.03		NC	NC	NC
Total Decachlorobiphenyls	9307-17	9307-17	0.07	(J)	< 1.28		NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value		Duplicate Value		Mean Value	Standard Deviation	RPD (%)
Total Decachlorobiphenyls	9307-7	9307-7	< 3.99		0.0B	(J)	NC	NC	NC
Method = SOP-9017 - Chlorinated Pesticides and PCBs, cont.									
Type = Laboratory Replicate (ng/g), cont.									
Total Decachlorobiphenyls	9307-8	9307-8	< 3.6B		0.4	(J)	NC	NC	NC
Total Decachlorobiphenyls	9307-9	9307-9	< 3.77		0.21	(J)	NC	NC	NC
Total Dichlorobiphenyls	9307-15	9307-15	2.77	(J)	0.21	(J)	1.49	1.8	172
Total Dichlorobiphenyls	9307-16	9307-16	2.5	(J)	0.31	(J)	1.405	1.5	156
Total Dichlorobiphenyls	9307-17	9307-17	1.92	(J)	10.14		6.03	5.8	136
Total Dichlorobiphenyls	9307-7	9307-7	< 11.41		0.04	(J)	NC	NC	NC
Total Dichlorobiphenyls	9307-8	9307-8	0.15	(J)	< 11.66		NC	NC	NC
Total Dichlorobiphenyls	9307-9	9307-9	0.16	(J)	0.1	(J)	0.13	0.0	46
Total Heptachlorobiphenyls	9307-15	9307-15	14.88		12.96		13.92	1.4	14
Total Heptachlorobiphenyls	9307-16	9307-16	2.59		30.68		16.635	19.9	169
Total Heptachlorobiphenyls	9307-17	9307-17	73.31		20.24		46.775	37.5	113
Total Heptachlorobiphenyls	9307-7	9307-7	19.99		36.16		28.075	11.4	58
Total Heptachlorobiphenyls	9307-8	9307-8	29.68		20.22		24.95	6.7	38
Total Heptachlorobiphenyls	9307-9	9307-9	16.33		20.93		18.63	3.3	25
Total Hexachlorobiphenyls	9307-15	9307-15	13.94		32.47		23.205	13.1	80
Total Hexachlorobiphenyls	9307-16	9307-16	6.54		70.63		38.585	45.3	166
Total Hexachlorobiphenyls	9307-17	9307-17	293.7		47.95		170.85	173.8	144
Total Hexachlorobiphenyls	9307-7	9307-7	32.75		50.37		41.56	12.5	42
Total Hexachlorobiphenyls	9307-8	9307-8	49.8		31.72		40.76	12.8	44
Total Hexachlorobiphenyls	9307-9	9307-9	25.06		25.99		25.525	0.7	4
Total Nonachlorobiphenyls	9307-15	9307-15	< 3.13		0.27	(J)	NC	NC	NC
Total Nonachlorobiphenyls	9307-16	9307-16	< 3.73		5.71		NC	NC	NC
Total Nonachlorobiphenyls	9307-17	9307-17	2.2	(J)	0.4	(J)	1.3	1.3	138
Total Nonachlorobiphenyls	9307-7	9307-7	< 8.04		< 8.5		NC	NC	NC
Total Nonachlorobiphenyls	9307-8	9307-8	< 7.41		< 8.21		NC	NC	NC
Total Nonachlorobiphenyls	9307-9	9307-9	< 7.58		< 9.4		NC	NC	NC
Total Octachlorobiphenyls	9307-15	9307-15	1.19	(J)	5.11		3.15	2.8	124
Total Octachlorobiphenyls	9307-16	9307-16	< 5.6		20.68		NC	NC	NC
Total Octachlorobiphenyls	9307-17	9307-17	27.16		4.22		15.69	16.2	146
Total Octachlorobiphenyls	9307-7	9307-7	2.66	(J)	5.4	(J)	4.03	1.9	68

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value		Duplicate Value		Mean Value	Standard Deviation	RPD (%)
Total Octachlorobiphenyls	9307-8	9307-8	5.98	(J)	5.28	(J)	5.63	0.5	12
Method = SOP-9017 - Chlorinated Pesticides and PCBs, cont.									
Type = Laboratory Replicate (ng/g), cont.									
Total Octachlorobiphenyls	9307-9	9307-9	2.48	(J)	1.34	(J)	1.91	0.8	60
Total PCBs	9307-15	9307-15	36.5		3.8		20.15	23.1	162
Total PCBs	9307-16	9307-16	27.2		3	(J)	15.1	17.1	160
Total PCBs	9307-17	9307-17	9		54.3		31.65	32.0	143
Total PCBs	9307-7	9307-7	12.8		19.4		16.1	4.7	41
Total PCBs	9307-8	9307-8	17.9		11.6		14.75	4.5	43
Total PCBs	9307-9	9307-9	11.5		13.6		12.55	1.5	17
Total Pentachlorobiphenyls	9307-15	9307-15	21.36		32.74		27.05	8.0	42
Total Pentachlorobiphenyls	9307-16	9307-16	28.83		60.36		44.595	22.3	71
Total Pentachlorobiphenyls	9307-17	9307-17	276.7		55.2		165.98	156.7	133
Total Pentachlorobiphenyls	9307-7	9307-7	51.7		99.58		75.64	33.9	63
Total Pentachlorobiphenyls	9307-8	9307-8	61.06		44.02		52.54	12.0	32
Total Pentachlorobiphenyls	9307-9	9307-9	37.57		44.86		41.215	5.2	18
Total Tetrachlorobiphenyls	9307-15	9307-15	16.37		3.71		10.04	9.0	126
Total Tetrachlorobiphenyls	9307-16	9307-16	9.08		4.08		6.58	3.5	76
Total Tetrachlorobiphenyls	9307-17	9307-17	20.46		22.34		21.4	1.3	9
Total Tetrachlorobiphenyls	9307-7	9307-7	11.97		18.62		15.295	4.7	43
Total Tetrachlorobiphenyls	9307-8	9307-8	14.84		9.71		12.275	3.6	42
Total Tetrachlorobiphenyls	9307-9	9307-9	6.2		8.48		7.34	1.6	31
Total Trichlorobiphenyls	9307-15	9307-15	2.5	(J)	0.4	(J)	1.45	1.5	145
Total Trichlorobiphenyls	9307-16	9307-16	3.73		0.7	(J)	2.215	2.1	137
Total Trichlorobiphenyls	9307-17	9307-17	1.95	(J)	12.39		7.17	7.4	146
Total Trichlorobiphenyls	9307-7	9307-7	2.62	(J)	4.07	(J)	3.345	1.0	43
Total Trichlorobiphenyls	9307-8	9307-8	4.63	(J)	2.24	(J)	3.435	1.7	70
Total Trichlorobiphenyls	9307-9	9307-9	2.95	(J)	3.31	(J)	3.13	0.3	12
Toxaphene	9307-15	9307-15	< 8.19		< 6.75		NC	NC	NC
Toxaphene	9307-16	9307-16	< 9.78		< 10.73		NC	NC	NC
Toxaphene	9307-17	9307-17	< 6.76		< 6.72		NC	NC	NC
Toxaphene	9307-7	9307-7	< 21.05		< 22.26		NC	NC	NC
Toxaphene	9307-8	9307-8	< 19.4		< 21.51		NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value		Duplicate Value		Mean Value	Standard Deviation	RPD (%)
Toxaphene	9307-9	9307-9	< 19.86		< 24.61		NC	NC	NC
Method = SOP-9017 - Chlorinated Pesticides and PCBs, cont.									
Type = Laboratory Replicate (ng/g), cont.									
alpha-BHC	9307-15	9307-15	< 1.38		< 1.14		NC	NC	NC
alpha-BHC	9307-16	9307-16	6.14		< 1.81		NC	NC	NC
alpha-BHC	9307-17	9307-17	< 1.14		< 1.13		NC	NC	NC
alpha-BHC	9307-7	9307-7	< 3.55		< 3.76		NC	NC	NC
alpha-BHC	9307-8	9307-8	< 3.27		< 3.63		NC	NC	NC
alpha-BHC	9307-9	9307-9	< 3.35		< 4.15		NC	NC	NC
alpha-Chlordane	9307-15	9307-15	0.52	(J)	< 1.64		NC	NC	NC
alpha-Chlordane	9307-16	9307-16	< 2.38		< 2.61		NC	NC	NC
alpha-Chlordane	9307-17	9307-17	< 1.64		9.1		NC	NC	NC
alpha-Chlordane	9307-7	9307-7	< 5.11		3.91	(J)	NC	NC	NC
alpha-Chlordane	9307-8	9307-8	< 4.71		0.1	(J)	NC	NC	NC
alpha-Chlordane	9307-9	9307-9	0.72	(J)	0.36	(J)	0.54	0.3	67
beta-BHC	9307-15	9307-15	1.13	(J)	< 2.97		NC	NC	NC
beta-BHC	9307-16	9307-16	0.31	(J)	< 4.71		NC	NC	NC
beta-BHC	9307-17	9307-17	0.8	(J)	14.67		7.735	9.8	179
beta-BHC	9307-7	9307-7	1.54	(J)	3.78	(J)	2.66	1.6	84
beta-BHC	9307-8	9307-8	2.29	(J)	1.74	(J)	2.015	0.4	27
beta-BHC	9307-9	9307-9	1.34	(J)	1.96	(J)	1.65	0.4	38
cis-Nonachlor	9307-15	9307-15	0.27	(J)	< 0.47		NC	NC	NC
cis-Nonachlor	9307-16	9307-16	0.31	(J)	< 0.75		NC	NC	NC
cis-Nonachlor	9307-17	9307-17	< 0.47		< 0.47		NC	NC	NC
cis-Nonachlor	9307-7	9307-7	1.21	(J)	2.41		1.81	0.8	66
cis-Nonachlor	9307-8	9307-8	1.84		1.29	(J)	1.565	0.4	35
cis-Nonachlor	9307-9	9307-9	1.03	(J)	1.24	(J)	1.135	0.1	19
delta-BHC	9307-15	9307-15	< 1.48		0.15	(J)	NC	NC	NC
delta-BHC	9307-16	9307-16	< 1.77		< 1.94		NC	NC	NC
delta-BHC	9307-17	9307-17	< 1.22		4.32		NC	NC	NC
delta-BHC	9307-7	9307-7	< 3.8		2.58	(J)	NC	NC	NC
delta-BHC	9307-8	9307-8	< 3.5		< 3.88		NC	NC	NC
delta-BHC	9307-9	9307-9	< 3.59		< 4.44		NC	NC	NC

Compiled: 20 May 1995

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value		Duplicate Value		Mean Value	Standard Deviation	RPD (%)
gamma-BHC	9307-15	9307-15	1.7		0.43	(J)	1.065	0.9	119
Method = SOP-9017 - Chlorinated Pesticides and PCBs, cont.									
Type = Laboratory Replicate (ng/g), cont.									
gamma-BHC	9307-16	9307-16	0.88	(J)	0.7	(J)	0.79	0.1	23
gamma-BHC	9307-17	9307-17	< 0.72		13.69		NC	NC	NC
gamma-BHC	9307-7	9307-7	< 2.25		1.41	(J)	NC	NC	NC
gamma-BHC	9307-8	9307-8	0.95	(J)	0.85	(J)	0.9	0.1	11
gamma-BHC	9307-9	9307-9	< 2.12		1.29		NC	NC	NC
gamma-Chlordane	9307-15	9307-15	4.32		< 0.78		NC	NC	NC
gamma-Chlordane	9307-16	9307-16	3.33		< 1.24		NC	NC	NC
gamma-Chlordane	9307-17	9307-17	< 0.78		< 0.78		NC	NC	NC
gamma-Chlordane	9307-7	9307-7	1.16	(J)	1.33	(J)	1.245	0.1	14
gamma-Chlordane	9307-8	9307-8	0.7	(J)	1	(J)	0.85	0.2	35
gamma-Chlordane	9307-9	9307-9	0.52	(J)	1.03	(J)	0.775	0.4	66
trans-Nonachlor	9307-15	9307-15	0.15	(J)	0.21	(J)	0.18	0.0	33
trans-Nonachlor	9307-16	9307-16	0.26	(J)	0.53	(J)	0.395	0.2	68
trans-Nonachlor	9307-17	9307-17	1.47	(J)	1.32	(J)	1.395	0.1	11
trans-Nonachlor	9307-7	9307-7	0.79	(J)	1.54	(J)	1.165	0.5	64
trans-Nonachlor	9307-8	9307-8	1.89	(J)	1.15	(J)	1.52	0.5	49
trans-Nonachlor	9307-9	9307-9	1.65	(J)	1.76	(J)	1.705	0.1	6
Method = SOP-9202 - Metals By DCP									
Type = Laboratory Control (%)									
Barium	LCS-D	LCS-E	116.5		100.1		108.3	11.6	15
Manganese	DORM-A	DORM-B	90.91	(J)	89.39		90.15	1.1	2
Manganese	LCS-D	LCS-E	97.6		95.3		96.45	1.6	2
Type = Laboratory Replicate (mg/Kg)									
Barium	9307-12	9307-12	< 0.056		< 0.052		NC	NC	NC
Barium	9307-5	9307-5	0.63		0.74		0.685	0.1	16
Manganese	9307-12	9307-12	< 2.255		< 2.066		NC	NC	NC
Manganese	9307-5	9307-5	20.39		20.34		20.365	0.0	0

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value		Duplicate Value		Mean Value	Standard Deviation	RPD (%)
Method = SW7040 - Antimony									
Type = Laboratory Control (%)									
Antimony	LCS-D	LCS-E	103.2		105.3		104.25	1.5	2
Type = Laboratory Replicate (mg/Kg)									
Antimony	9307-12	9307-12	< 0.282		< 0.258		NC	NC	NC
Antimony	9307-5	9307-5	< 0.272		< 0.245		NC	NC	NC
Method = SW7060 - Arsenic									
Type = Laboratory Control (%)									
Arsenic	DORM-A	DORM-B	92.94		96.95		94.945	2.8	4
Arsenic	LCS-D	LCS-E	91.2		99		95.1	5.5	8
Type = Laboratory Replicate (mg/Kg)									
Arsenic	9307-12	9307-12	0.02	(J)	0.11	(J)	0.065	0.1	138
Arsenic	9307-5	9307-5	0.21		0.14	(J)	0.175	0.0	40
Method = SW7131 - Cadmium									
Type = Laboratory Control (%)									
Cadmium	DORM-A	DORM-B	93.02		116.3		104.66	16.5	22
Cadmium	LCS-D	LCS-E	107.8		105.3		106.55	1.8	2
Type = Laboratory Replicate (mg/Kg)									
Cadmium	9307-12	9307-12	0.05		0.05		0.05	0.0	0
Cadmium	9307-5	9307-5	0.1		0.11		0.105	0.0	10
Method = SW7191 - Chromium									
Type = Laboratory Control (%)									
Chromium	DORM-A	DORM-B	92.78		83.61		88.195	6.5	10
Chromium	LCS-D	LCS-E	102.6		98.7		100.65	2.8	4

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value		Duplicate Value		Mean Value	Standard Deviation	RPD (%)
Type = Laboratory Replicate (mg/Kg)									
Chromium	9307-12	9307-12	0.14		0.12	(J)	0.13	0.0	15
Chromium	9307-5	9307-5	0.08		0.06		0.07	0.0	29
Method = SW7421 - Lead									
Type = Laboratory Control (%)									
Lead	DORM-A	DORM-B	110		82.5		96.25	19.4	29
Lead	LCS-D	LCS-E	100		96.6		98.3	2.4	3
Type = Laboratory Replicate (mg/Kg)									
Lead	9307-12	9307-12	0.06	(J)	0.01	(J)	0.035	0.0	143
Lead	9307-5	9307-5	0.02	(J)	0.05	(J)	0.035	0.0	86
Method = SW7450 - Magnesium									
Type = Laboratory Control (%)									
Magnesium	DORM-A	DORM-B	96.86		97.6		97.23	0.5	1
Magnesium	LCS-D	LCS-E	109.8		105.4		107.6	3.1	4
Type = Laboratory Replicate (mg/Kg)									
Magnesium	9307-12	9307-12	1239		1174		1206.5	46.0	5
Magnesium	9307-5	9307-5	1213		1156		1184.5	40.3	5
Method = SW7471 - Mercury									
Type = Laboratory Control (%)									
Mercury	DORM-A	DORM-B	91.48		92.11		91.795	0.4	1
Mercury	LCS-D	LCS-E	89.4		103.4		96.4	9.9	15
Type = Laboratory Replicate (mg/Kg)									
Mercury	9307-12	9307-12	0.067		0.073		0.07	0.0	9
Mercury	9307-5	9307-5	0.006	(J)	0.005	(J)	0.0055	0.0	18

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value		Duplicate Value		Mean Value	Standard Deviation	RPD (%)
Method = SW7740 - Selenium									
Method = SW7740 - Selenium									
Type = Laboratory Control (%)									
Selenium	DORM-A	DORM-B	106.8		81.48		94.14	17.9	27
Selenium	LCS-D	LCS-E	99.3		100.9		100.1	1.1	2
Type = Laboratory Replicate (mg/Kg)									
Selenium	9307-12	9307-12	2.64		2.65		2.645	0.0	0
Selenium	9307-5	9307-5	1.74		1.54		1.64	0.1	12
Method = SW7841 - Thallium									
Type = Laboratory Control (%)									
Thallium	LCS-D	LCS-E	108.9		98.9		103.9	7.1	10
Type = Laboratory Replicate (mg/Kg)									
Thallium	9307-12	9307-12	0.02	(J)	0.05	(J)	0.035	0.0	86
Thallium	9307-5	9307-5	0.1	(J)	0.04	(J)	0.07	0.0	86
Method = SW8270 - Semivolatile Organics									
Type = Laboratory Replicate (ppb)									
1,2,4,5-Tetrachlorobenzene	9307-13	9307-13	< 1543		< 1059		NC	NC	NC
1,2,4,5-Tetrachlorobenzene	9307-14	9307-14	< 1445		< 1639		NC	NC	NC
1,2,4,5-Tetrachlorobenzene	9307-7	9307-7	< 1866		< 1634		NC	NC	NC
1,2,4,5-Tetrachlorobenzene	9307-8	9307-8	< 2041		< 2083		NC	NC	NC
1,2,4,5-Tetrachlorobenzene	9307-9	9307-9	< 2427		< 2092		NC	NC	NC
1,2,4-Trichlorobenzene	9307-13	9307-13	< 1543		< 1059		NC	NC	NC
1,2,4-Trichlorobenzene	9307-14	9307-14	< 1445		< 1639		NC	NC	NC
1,2,4-Trichlorobenzene	9307-7	9307-7	< 1866		< 1634		NC	NC	NC
1,2,4-Trichlorobenzene	9307-8	9307-8	< 2041		< 2083		NC	NC	NC
1,2,4-Trichlorobenzene	9307-9	9307-9	< 2427		< 2092		NC	NC	NC
1,2-Dichlorobenzene	9307-13	9307-13	< 1543		< 1059		NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
1,2-Dichlorobenzene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
1,2-Dichlorobenzene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
1,2-Dichlorobenzene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
1,2-Dichlorobenzene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
1,3,-Dichlorobenzene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
1,3,-Dichlorobenzene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
1,3,-Dichlorobenzene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
1,3,-Dichlorobenzene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
1,3,-Dichlorobenzene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
1,3-Dinitrobenzene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
1,3-Dinitrobenzene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
1,3-Dinitrobenzene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
1,3-Dinitrobenzene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
1,3-Dinitrobenzene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
1,4,-Phenylenediamine (2)	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
1,4,-Phenylenediamine (2)	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
1,4,-Phenylenediamine (2)	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
1,4,-Phenylenediamine (2)	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
1,4,-Phenylenediamine (2)	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
1,4-Dichlorobenzene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
1,4-Dichlorobenzene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
1,4-Dichlorobenzene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
1,4-Dichlorobenzene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
1,4-Dichlorobenzene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
1,4-Naphthoquinone	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
1,4-Naphthoquinone	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
1,4-Naphthoquinone	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
1,4-Naphthoquinone	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
1,4-Naphthoquinone	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
1-Naphthylamine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
1-Naphthylamine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC

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Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
1-Naphthylamine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
1-Naphthylamine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
1-Naphthylamine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2,3,4,6-Tetrachlorophenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2,3,4,6-Tetrachlorophenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2,3,4,6-Tetrachlorophenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2,3,4,6-Tetrachlorophenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2,3,4,6-Tetrachlorophenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2,4,5-Trichlorophenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2,4,5-Trichlorophenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2,4,5-Trichlorophenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2,4,5-Trichlorophenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2,4,5-Trichlorophenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2,4,6-Trichlorophenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2,4,6-Trichlorophenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2,4,6-Trichlorophenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2,4,6-Trichlorophenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2,4,6-Trichlorophenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2,4-Dichlorophenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2,4-Dichlorophenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2,4-Dichlorophenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2,4-Dichlorophenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2,4-Dichlorophenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2,4-Dimethylphenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2,4-Dimethylphenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2,4-Dimethylphenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2,4-Dimethylphenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2,4-Dimethylphenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2,4-Dinitrophenol	9307-13	9307-13	< 3086	< 2119	NC	NC	NC
2,4-Dinitrophenol	9307-14	9307-14	< 2890	< 3279	NC	NC	NC
2,4-Dinitrophenol	9307-7	9307-7	< 3731	< 3268	NC	NC	NC

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Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
2,4-Dinitrophenol	9307-8	9307-8	< 2041	< 4167	NC	NC	NC

Method = SW8270 - Semivolatile Drganics, cont.

Type = Laboratory Replicate (ppb), cont.

2,4-Dinitrophenol	9307-9	9307-9	< 4854	< 4184	NC	NC	NC
2,4-Dinitrotoluene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2,4-Dinitrotoluene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2,4-Dinitrotoluene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2,4-Dinitrotoluene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2,4-Dinitrotoluene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2,6-Dichlorophenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2,6-Dichlorophenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2,6-Dichlorophenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2,6-Dichlorophenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2,6-Dichlorophenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2,6-Dinitrotoluene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2,6-Dinitrotoluene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2,6-Dinitrotoluene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2,6-Dinitrotoluene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2,6-Dinitrotoluene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2-Acetylaminofluorene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2-Acetylaminofluorene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2-Acetylaminofluorene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2-Acetylaminofluorene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2-Acetylaminofluorene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2-Chloronaphthalene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2-Chloronaphthalene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2-Chloronaphthalene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2-Chloronaphthalene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2-Chloronaphthalene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2-Chlorophenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2-Chlorophenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2-Chlorophenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2-Chlorophenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC

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Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
2-Chlorophenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC

Method = SW8270 - Semivolatile Organics, cont.

Type = Laboratory Replicate (ppb), cont.

2-Methylnaphthalene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2-Methylnaphthalene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2-Methylnaphthalene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2-Methylnaphthalene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2-Methylnaphthalene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2-Methylphenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2-Methylphenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2-Methylphenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2-Methylphenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2-Methylphenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2-Naphthylamine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2-Naphthylamine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2-Naphthylamine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2-Naphthylamine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2-Naphthylamine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2-Nitroaniline	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2-Nitroaniline	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2-Nitroaniline	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2-Nitroaniline	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2-Nitroaniline	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2-Nitrophenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2-Nitrophenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2-Nitrophenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2-Nitrophenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2-Nitrophenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
2-Picoline	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
2-Picoline	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
2-Picoline	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
2-Picoline	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
2-Picoline	9307-9	9307-9	< 2427	< 2092	NC	NC	NC

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NC = Not Calculable ND = Not Detected () = Data Flag * - Value considered suspect, Refer to QC Report

TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
3,3'-Dichlorobenzidine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
3,3'-Dichlorobenzidine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
3,3'-Dichlorobenzidine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
3,3'-Dichlorobenzidine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
3,3'-Dichlorobenzidine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
3,3'-Dimethoxybenzidine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
3,3'-Dimethoxybenzidine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
3,3'-Dimethoxybenzidine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
3,3'-Dimethoxybenzidine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
3,3'-Dimethoxybenzidine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
3-Methylchloanthrene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
3-Methylchloanthrene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
3-Methylchloanthrene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
3-Methylchloanthrene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
3-Methylchloanthrene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
3-Methylphenol (2)	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
3-Methylphenol (2)	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
3-Methylphenol (2)	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
3-Methylphenol (2)	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
3-Methylphenol (2)	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
3-Nitroaniline	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
3-Nitroaniline	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
3-Nitroaniline	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
3-Nitroaniline	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
3-Nitroaniline	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
4,6,-Dinitro-2-methylphenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
4,6,-Dinitro-2-methylphenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
4,6,-Dinitro-2-methylphenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
4,6,-Dinitro-2-methylphenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
4,6,-Dinitro-2-methylphenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
4-Aminobiphenyl	9307-13	9307-13	< 1543	< 1059	NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
4-Aminobiphenyl	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
4-Aminobiphenyl	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
4-Aminobiphenyl	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
4-Aminobiphenyl	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
4-Bromophenyl-phenylether	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
4-Bromophenyl-phenylether	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
4-Bromophenyl-phenylether	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
4-Bromophenyl-phenylether	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
4-Bromophenyl-phenylether	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
4-Chloro-3-methylphenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
4-Chloro-3-methylphenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
4-Chloro-3-methylphenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
4-Chloro-3-methylphenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
4-Chloro-3-methylphenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
4-Chloroaniline	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
4-Chloroaniline	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
4-Chloroaniline	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
4-Chloroaniline	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
4-Chloroaniline	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
4-Chlorophenyl-phenylether	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
4-Chlorophenyl-phenylether	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
4-Chlorophenyl-phenylether	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
4-Chlorophenyl-phenylether	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
4-Chlorophenyl-phenylether	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
4-Methylphenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
4-Methylphenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
4-Methylphenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
4-Methylphenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
4-Methylphenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
4-Nitroaniline	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
4-Nitroaniline	9307-14	9307-14	< 1445	< 1639	NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
4-Nitroaniline	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
4-Nitroaniline	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
4-Nitroaniline	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
4-Nitrophenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
4-Nitrophenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
4-Nitrophenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
4-Nitrophenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
4-Nitrophenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
4-Nitroquinoline-1-oxide	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
4-Nitroquinoline-1-oxide	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
4-Nitroquinoline-1-oxide	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
4-Nitroquinoline-1-oxide	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
4-Nitroquinoline-1-oxide	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
5-Nitro-o-toluidine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
5-Nitro-o-toluidine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
5-Nitro-o-toluidine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
5-Nitro-o-toluidine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
5-Nitro-o-toluidine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
7,12-Dimethylbenz(a)anthracene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
7,12-Dimethylbenz(a)anthracene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
7,12-Dimethylbenz(a)anthracene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
7,12-Dimethylbenz(a)anthracene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
7,12-Dimethylbenz(a)anthracene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Acenaphthene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Acenaphthene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Acenaphthene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Acenaphthene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Acenaphthene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Acenaphthylene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Acenaphthylene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Acenaphthylene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
Acenaphthylene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
Acenaphthylene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Acetophenone	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Acetophenone	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Acetophenone	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Acetophenone	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Acetophenone	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Aniline	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Aniline	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Aniline	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Aniline	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Aniline	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Anthracene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Anthracene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Anthracene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Anthracene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Anthracene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Aramite (peak 2) 2	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Aramite (peak 2) 2	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Aramite (peak 2) 2	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Aramite (peak 2) 2	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Aramite (peak 2) 2	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Aramite (peak1) 2	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Aramite (peak1) 2	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Aramite (peak1) 2	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Aramite (peak1) 2	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Aramite (peak1) 2	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Benzo(a)anthracene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Benzo(a)anthracene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Benzo(a)anthracene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Benzo(a)anthracene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
Benzo(a)anthracene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
Benzo(a)pyrene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Benzo(a)pyrene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Benzo(a)pyrene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Benzo(a)pyrene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Benzo(a)pyrene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Benzo(b)fluoranthene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Benzo(b)fluoranthene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Benzo(b)fluoranthene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Benzo(b)fluoranthene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Benzo(b)fluoranthene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Benzo(g,h,i)perylene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Benzo(g,h,i)perylene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Benzo(g,h,i)perylene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Benzo(g,h,i)perylene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Benzo(g,h,i)perylene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Benzo(k)fluoranthene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Benzo(k)fluoranthene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Benzo(k)fluoranthene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Benzo(k)fluoranthene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Benzo(k)fluoranthene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Benzyl alcohol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Benzyl alcohol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Benzyl alcohol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Benzyl alcohol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Benzyl alcohol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Bis(2-Ethylhexyl)phthalate	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Bis(2-Ethylhexyl)phthalate	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Bis(2-Ethylhexyl)phthalate	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Bis(2-Ethylhexyl)phthalate	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Bis(2-Ethylhexyl)phthalate	9307-9	9307-9	< 2427	< 2092	NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
Butylbenzylphthalate	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
Butylbenzylphthalate	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Butylbenzylphthalate	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Butylbenzylphthalate	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Butylbenzylphthalate	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Chlorobenzilate	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Chlorobenzilate	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Chlorobenzilate	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Chlorobenzilate	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Chlorobenzilate	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Chrysene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Chrysene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Chrysene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Chrysene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Chrysene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Di-n-butylphthalate	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Di-n-butylphthalate	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Di-n-butylphthalate	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Di-n-butylphthalate	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Di-n-butylphthalate	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Di-n-octylphthalate	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Di-n-octylphthalate	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Di-n-octylphthalate	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Di-n-octylphthalate	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Di-n-octylphthalate	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Diallate (peak 1) (2)	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Diallate (peak 1) (2)	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Diallate (peak 1) (2)	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Diallate (peak 1) (2)	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Diallate (peak 1) (2)	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Diallate (peak 2) 2	9307-13	9307-13	< 1543	< 1059	NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Ouplicate Value	Mean Value	Standard Deviation	RPD (%)
Diallate (peak 2) 2	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
Diallate (peak 2) 2	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Diallate (peak 2) 2	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Diallate (peak 2) 2	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Dibenz(a,h)anthracene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Dibenz(a,h)anthracene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Dibenz(a,h)anthracene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Dibenz(a,h)anthracene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Dibenz(a,h)anthracene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Dibenzofuran	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Dibenzofuran	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Dibenzofuran	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Dibenzofuran	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Dibenzofuran	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Diethylphthalate	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Diethylphthalate	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Diethylphthalate	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Diethylphthalate	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Diethylphthalate	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Dimethylphenethyamine	9307-13	9307-13	< 18519	< 12712	NC	NC	NC
Dimethylphenethyamine	9307-14	9307-14	< 17341	< 19672	NC	NC	NC
Dimethylphenethyamine	9307-7	9307-7	< 22388	< 19608	NC	NC	NC
Dimethylphenethyamine	9307-8	9307-8	< 24490	< 25000	NC	NC	NC
Dimethylphenethyamine	9307-9	9307-9	< 29126	< 25105	NC	NC	NC
Dimethylphthalate	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Dimethylphthalate	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Dimethylphthalate	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Dimethylphthalate	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Dimethylphthalate	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Diphenylamine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Diphenylamine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC

Compiled: 20 May 1995

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
Diphenylamine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC

Method = SW8270 - Semivolatile Organics, cont.

Type = Laboratory Replicate (ppb), cont.

Diphenylamine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Diphenylamine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Ethylmethansulfonate (2)	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Ethylmethansulfonate (2)	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Ethylmethansulfonate (2)	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Ethylmethansulfonate (2)	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Ethylmethansulfonate (2)	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Fluoranthene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Fluoranthene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Fluoranthene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Fluoranthene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Fluoranthene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Fluorene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Fluorene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Fluorene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Fluorene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Fluorene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Hexachlorobenzene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Hexachlorobenzene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Hexachlorobenzene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Hexachlorobenzene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Hexachlorobenzene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Hexachlorobutadiene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Hexachlorobutadiene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Hexachlorobutadiene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Hexachlorobutadiene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Hexachlorobutadiene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Hexachlorocyclopentadiene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Hexachlorocyclopentadiene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Hexachlorocyclopentadiene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
Hexachlorocyclopentadiene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
Hexachlorocyclopentadiene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Hexachloroethane	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Hexachloroethane	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Hexachloroethane	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Hexachloroethane	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Hexachloroethane	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Hexachlorophene (2)	9307-13	9307-13	< 313272	< 215042	NC	NC	NC
Hexachlorophene (2)	9307-14	9307-14	< 293353	< 332787	NC	NC	NC
Hexachlorophene (2)	9307-7	9307-7	< 378731	< 331699	NC	NC	NC
Hexachlorophene (2)	9307-8	9307-8	< 414286	< 422917	NC	NC	NC
Hexachlorophene (2)	9307-9	9307-9	< 492718	< 424686	NC	NC	NC
Hexachloropropene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Hexachloropropene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Hexachloropropene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Hexachloropropene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Hexachloropropene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Indeno(1,2,3-cd)pyrene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Indeno(1,2,3-cd)pyrene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Indeno(1,2,3-cd)pyrene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Indeno(1,2,3-cd)pyrene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Indeno(1,2,3-cd)pyrene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Isophorone	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Isophorone	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Isophorone	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Isophorone	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Isophorone	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Isosafrole	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Isosafrole	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Isosafrole	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Isosafrole	9307-8	9307-8	< 2041	< 2083	NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
Isosafrole	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
Methapyrilene (2)	9307-13	9307-13	< 7716	< 5297	NC	NC	NC
Methapyrilene (2)	9307-14	9307-14	< 7225	< 8197	NC	NC	NC
Methapyrilene (2)	9307-7	9307-7	< 9328	< 8170	NC	NC	NC
Methapyrilene (2)	9307-8	9307-8	< 10204	< 10417	NC	NC	NC
Methapyrilene (2)	9307-9	9307-9	< 12136	< 10460	NC	NC	NC
Methylmethansulfonate (2)	9307-13	9307-13	< 7716	< 5297	NC	NC	NC
Methylmethansulfonate (2)	9307-14	9307-14	< 7225	< 8197	NC	NC	NC
Methylmethansulfonate (2)	9307-7	9307-7	< 9328	< 8170	NC	NC	NC
Methylmethansulfonate (2)	9307-8	9307-8	< 10204	< 10417	NC	NC	NC
Methylmethansulfonate (2)	9307-9	9307-9	< 12136	< 10460	NC	NC	NC
N-Nitrosodiphenylamine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
N-Nitrosodiphenylamine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
N-Nitrosodiphenylamine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
N-Nitrosodiphenylamine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
N-Nitrosodiphenylamine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Naphthalene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Naphthalene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Naphthalene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Naphthalene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Naphthalene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Nitrobenzene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Nitrobenzene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Nitrobenzene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Nitrobenzene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Nitrobenzene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Pentachlorobenzene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Pentachlorobenzene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Pentachlorobenzene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Pentachlorobenzene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Pentachlorobenzene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
Pentachloroethane (2)	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
Pentachloroethane (2)	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Pentachloroethane (2)	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Pentachloroethane (2)	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Pentachloroethane (2)	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Pentachloronitrobenzene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Pentachloronitrobenzene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Pentachloronitrobenzene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Pentachloronitrobenzene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Pentachloronitrobenzene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Pentachlorophenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Pentachlorophenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Pentachlorophenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Pentachlorophenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Pentachlorophenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Phenactin	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Phenactin	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Phenactin	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Phenactin	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Phenactin	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Phenanthrene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Phenanthrene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Phenanthrene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Phenanthrene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Phenanthrene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Phenol	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Phenol	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Phenol	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Phenol	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Phenol	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Pronamide	9307-13	9307-13	< 1543	< 1059	NC	NC	NC

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
Pronamide	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
Pronamide	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Pronamide	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Pronamide	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Pyrene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Pyrene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Pyrene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Pyrene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Pyrene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Pyridine (2)	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Pyridine (2)	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Pyridine (2)	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Pyridine (2)	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Pyridine (2)	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Safrole (2)	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
Safrole (2)	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
Safrole (2)	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Safrole (2)	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Safrole (2)	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
bis(2-Chloroethoxy)methane	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
bis(2-Chloroethoxy)methane	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
bis(2-Chloroethoxy)methane	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
bis(2-Chloroethoxy)methane	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
bis(2-Chloroethoxy)methane	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
bis(2-Chloroethyl)ether	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
bis(2-Chloroethyl)ether	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
bis(2-Chloroethyl)ether	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
bis(2-Chloroethyl)ether	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
bis(2-Chloroethyl)ether	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
bis(2-Chloroisopropyl)ether	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
bis(2-Chloroisopropyl)ether	9307-14	9307-14	< 1445	< 1639	NC	NC	NC

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Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
bis(2-Chloroisopropyl)ether	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
bis(2-Chloroisopropyl)ether	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
bis(2-Chloroisopropyl)ether	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
n-Nitroso-di-n-butylamine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
n-Nitroso-di-n-butylamine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
n-Nitroso-di-n-butylamine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
n-Nitroso-di-n-butylamine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
n-Nitroso-di-n-butylamine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
n-Nitroso-di-n-propylamine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
n-Nitroso-di-n-propylamine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
n-Nitroso-di-n-propylamine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
n-Nitroso-di-n-propylamine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
n-Nitroso-di-n-propylamine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
n-Nitrosodiethylamine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
n-Nitrosodiethylamine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
n-Nitrosodiethylamine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
n-Nitrosodiethylamine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
n-Nitrosodiethylamine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
n-Nitrosodimethylamine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
n-Nitrosodimethylamine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
n-Nitrosodimethylamine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
n-Nitrosodimethylamine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
n-Nitrosodimethylamine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
n-Nitrosomethylethylamine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
n-Nitrosomethylethylamine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
n-Nitrosomethylethylamine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
n-Nitrosomethylethylamine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
n-Nitrosomethylethylamine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
n-Nitrosomorpholine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
n-Nitrosomorpholine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
n-Nitrosomorpholine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC

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Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
n-Nitrosomorpholine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
Method = SW8270 - Semivolatile Organics, cont.							
Type = Laboratory Replicate (ppb), cont.							
n-Nitrosomorpholine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
n-Nitrosopiperidine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
n-Nitrosopiperidine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
n-Nitrosopiperidine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
n-Nitrosopiperidine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
n-Nitrosopiperidine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
n-Nitrosopyrrolidine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
n-Nitrosopyrrolidine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
n-Nitrosopyrrolidine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
n-Nitrosopyrrolidine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
n-Nitrosopyrrolidine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
o-Toluidine	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
o-Toluidine	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
o-Toluidine	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
o-Toluidine	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
o-Toluidine	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
p-Dimethylaminoazobenzene	9307-13	9307-13	< 1543	< 1059	NC	NC	NC
p-Dimethylaminoazobenzene	9307-14	9307-14	< 1445	< 1639	NC	NC	NC
p-Dimethylaminoazobenzene	9307-7	9307-7	< 1866	< 1634	NC	NC	NC
p-Dimethylaminoazobenzene	9307-8	9307-8	< 2041	< 2083	NC	NC	NC
p-Dimethylaminoazobenzene	9307-9	9307-9	< 2427	< 2092	NC	NC	NC
Method = SW8290 - Dioxins and Furans							
Type = Laboratory Replicate (pg/g)							
1,2,3,4,6,7,8-HpCDD	9307-12	9307-12	< 108.4	< 118.1	NC	NC	NC
1,2,3,4,6,7,8-HpCDD	9307-13	9307-13	< 114.1	< 185.8	NC	NC	NC
1,2,3,4,6,7,8-HpCDD	9307-14	9307-14	< 155.9	< 155.7	NC	NC	NC
1,2,3,4,6,7,8-HpCDD	9307-7	9307-7	< 103.7	< 99.8	NC	NC	NC
1,2,3,4,6,7,8-HpCDD	9307-8	9307-8	< 107.4	< 112.3	NC	NC	NC

Compiled: 20 May 1995

NC = Not Calculable ND = Not Detected () = Data Flag * - Value considered suspect, Refer to QC Report

TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
1,2,3,4,6,7,8-HpCDD	9307-9	9307-9	< 115.6	< 99.1	NC	NC	NC
Method = SW8290 - Dioxins and Furans, cont.							
Type = Laboratory Replicate (pg/g), cont.							
1,2,3,4,6,7,8-HpCDF	9307-12	9307-12	< 108.4	< 59	NC	NC	NC
1,2,3,4,6,7,8-HpCDF	9307-13	9307-13	< 57	< 92.9	NC	NC	NC
1,2,3,4,6,7,8-HpCDF	9307-14	9307-14	< 77.9	< 77.9	NC	NC	NC
1,2,3,4,6,7,8-HpCDF	9307-7	9307-7	< 103.7	< 99.8	NC	NC	NC
1,2,3,4,6,7,8-HpCDF	9307-8	9307-8	< 107.4	< 112.3	NC	NC	NC
1,2,3,4,6,7,8-HpCDF	9307-9	9307-9	< 115.6	< 99.1	NC	NC	NC
1,2,3,4,7,8,9-HpCDF	9307-12	9307-12	< 108.4	< 59	NC	NC	NC
1,2,3,4,7,8,9-HpCDF	9307-13	9307-13	< 57	< 92.9	NC	NC	NC
1,2,3,4,7,8,9-HpCDF	9307-14	9307-14	< 77.9	< 77.9	NC	NC	NC
1,2,3,4,7,8,9-HpCDF	9307-7	9307-7	< 103.7	< 99.8	NC	NC	NC
1,2,3,4,7,8,9-HpCDF	9307-8	9307-8	< 107.4	< 112.3	NC	NC	NC
1,2,3,4,7,8,9-HpCDF	9307-9	9307-9	< 115.6	< 99.1	NC	NC	NC
1,2,3,4,7,8-HxCDD	9307-12	9307-12	< 108.4	< 59	NC	NC	NC
1,2,3,4,7,8-HxCDD	9307-13	9307-13	< 57	< 92.9	NC	NC	NC
1,2,3,4,7,8-HxCDD	9307-14	9307-14	< 77.9	< 77.9	NC	NC	NC
1,2,3,4,7,8-HxCDD	9307-7	9307-7	< 103.7	< 99.8	NC	NC	NC
1,2,3,4,7,8-HxCDD	9307-8	9307-8	< 107.4	< 112.3	NC	NC	NC
1,2,3,4,7,8-HxCDD	9307-9	9307-9	< 115.6	< 99.1	NC	NC	NC
1,2,3,4,7,8-HxCDF	9307-12	9307-12	< 108.4	< 59	NC	NC	NC
1,2,3,4,7,8-HxCDF	9307-13	9307-13	< 57	< 92.9	NC	NC	NC
1,2,3,4,7,8-HxCDF	9307-14	9307-14	< 77.9	< 77.9	NC	NC	NC
1,2,3,4,7,8-HxCDF	9307-7	9307-7	< 103.7	< 99.8	NC	NC	NC
1,2,3,4,7,8-HxCDF	9307-8	9307-8	< 107.4	< 112.3	NC	NC	NC
1,2,3,4,7,8-HxCDF	9307-9	9307-9	< 115.6	< 99.1	NC	NC	NC
1,2,3,6,7,8-HxCDD	9307-12	9307-12	< 108.4	< 59	NC	NC	NC
1,2,3,6,7,8-HxCDD	9307-13	9307-13	< 57	< 92.9	NC	NC	NC
1,2,3,6,7,8-HxCDD	9307-14	9307-14	< 77.9	< 77.9	NC	NC	NC
1,2,3,6,7,8-HxCDD	9307-7	9307-7	< 103.7	< 99.8	NC	NC	NC
1,2,3,6,7,8-HxCDD	9307-8	9307-8	< 107.4	< 112.3	NC	NC	NC
1,2,3,6,7,8-HxCDD	9307-9	9307-9	< 115.6	< 99.1	NC	NC	NC

Compiled: 20 May 1995

NC = Not Calculable ND = Not Detected () = Data Flag * - Value considered suspect. Refer to QC Report

TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value		Mean Value	Standard Deviation	RPD (%)
1,2,3,6,7,8-HxCDF	9307-12	9307-12	< 108.4	< 59		NC	NC	NC
Method = SW8290 - Dioxins and Furans, cont.								
Type = Laboratory Replicate (pg/g), cont.								
1,2,3,6,7,8-HxCDF	9307-13	9307-13	< 57	< 92.9		NC	NC	NC
1,2,3,6,7,8-HxCDF	9307-14	9307-14	< 77.9	< 77.9		NC	NC	NC
1,2,3,6,7,8-HxCDF	9307-7	9307-7	< 103.7	< 99.8		NC	NC	NC
1,2,3,6,7,8-HxCDF	9307-8	9307-8	< 107.4	< 112.3		NC	NC	NC
1,2,3,6,7,8-HxCDF	9307-9	9307-9	< 115.6	< 99.1		NC	NC	NC
1,2,3,7,8,9-HxCDD	9307-12	9307-12	< 108.4	< 59		NC	NC	NC
1,2,3,7,8,9-HxCDD	9307-13	9307-13	< 57	< 92.9		NC	NC	NC
1,2,3,7,8,9-HxCDD	9307-14	9307-14	< 77.9	< 77.9		NC	NC	NC
1,2,3,7,8,9-HxCDD	9307-7	9307-7	< 103.7	< 99.8		NC	NC	NC
1,2,3,7,8,9-HxCDD	9307-8	9307-8	< 107.4	< 112.3		NC	NC	NC
1,2,3,7,8,9-HxCDD	9307-9	9307-9	< 115.6	< 99.1		NC	NC	NC
1,2,3,7,8,9-HxCDF	9307-12	9307-12	< 108.4	< 59		NC	NC	NC
1,2,3,7,8,9-HxCDF	9307-13	9307-13	< 57	< 92.9		NC	NC	NC
1,2,3,7,8,9-HxCDF	9307-14	9307-14	< 77.9	< 77.9		NC	NC	NC
1,2,3,7,8,9-HxCDF	9307-7	9307-7	< 103.7	< 99.8		NC	NC	NC
1,2,3,7,8,9-HxCDF	9307-8	9307-8	< 107.4	< 112.3		NC	NC	NC
1,2,3,7,8,9-HxCDF	9307-9	9307-9	< 115.6	< 99.1		NC	NC	NC
1,2,3,7,8-PeCDD	9307-12	9307-12	< 108.4	< 59		NC	NC	NC
1,2,3,7,8-PeCDD	9307-13	9307-13	< 57	43.04	(J)	NC	NC	NC
1,2,3,7,8-PeCDD	9307-14	9307-14	< 77.9	< 77.9		NC	NC	NC
1,2,3,7,8-PeCDD	9307-7	9307-7	< 103.7	< 99.8		NC	NC	NC
1,2,3,7,8-PeCDD	9307-8	9307-8	< 107.4	< 112.3		NC	NC	NC
1,2,3,7,8-PeCDD	9307-9	9307-9	< 115.6	< 99.1		NC	NC	NC
1,2,3,7,8-PeCDF	9307-12	9307-12	< 108.4	< 59		NC	NC	NC
1,2,3,7,8-PeCDF	9307-13	9307-13	< 57	41.06	(J)	NC	NC	NC
1,2,3,7,8-PeCDF	9307-14	9307-14	85	< 77.9		NC	NC	NC
1,2,3,7,8-PeCDF	9307-7	9307-7	< 103.7	122.23		NC	NC	NC
1,2,3,7,8-PeCDF	9307-8	9307-8	< 107.4	< 112.3		NC	NC	NC
1,2,3,7,8-PeCDF	9307-9	9307-9	< 115.6	< 99.1		NC	NC	NC
2,3,4,6,7,8-HxCDF	9307-12	9307-12	< 108.4	< 59		NC	NC	NC

Compiled: 20 May 1995

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value		Mean Value	Standard Deviation	RPD (%)
2,3,4,6,7,8-HxCDF	9307-13	9307-13	< 57	< 92.9		NC	NC	NC
Method = SW8290 - Dioxins and Furans, cont.								
Type = Laboratory Replicate (pg/g), cont.								
2,3,4,6,7,8-HxCDF	9307-14	9307-14	< 77.9	< 77.9		NC	NC	NC
2,3,4,6,7,8-HxCDF	9307-7	9307-7	< 103.7	< 99.8		NC	NC	NC
2,3,4,6,7,8-HxCDF	9307-8	9307-8	< 107.4	< 112.3		NC	NC	NC
2,3,4,6,7,8-HxCDF	9307-9	9307-9	< 115.6	< 99.1		NC	NC	NC
2,3,4,7,8-PeCDF	9307-12	9307-12	< 108.4	< 59		NC	NC	NC
2,3,4,7,8-PeCDF	9307-13	9307-13	< 57	35.18	(J)	NC	NC	NC
2,3,4,7,8-PeCDF	9307-14	9307-14	< 77.9	< 77.9		NC	NC	NC
2,3,4,7,8-PeCDF	9307-7	9307-7	< 103.7	< 99.8		NC	NC	NC
2,3,4,7,8-PeCDF	9307-8	9307-8	< 107.4	< 112.3		NC	NC	NC
2,3,4,7,8-PeCDF	9307-9	9307-9	< 115.6	< 99.1		NC	NC	NC
2,3,7,8-TCDD	9307-12	9307-12	< 43.3	< 23.6		NC	NC	NC
2,3,7,8-TCDD	9307-13	9307-13	< 22.8	32.33	(J)	NC	NC	NC
2,3,7,8-TCDD	9307-14	9307-14	< 31.2	< 31.1		NC	NC	NC
2,3,7,8-TCDD	9307-7	9307-7	< 41.5	< 39.9		NC	NC	NC
2,3,7,8-TCDD	9307-8	9307-8	< 43	< 44.9		NC	NC	NC
2,3,7,8-TCDD	9307-9	9307-9	< 46.2	< 39.6		NC	NC	NC
2,3,7,8-TCDF	9307-12	9307-12	< 43.3	22.76	(J)	NC	NC	NC
2,3,7,8-TCDF	9307-13	9307-13	< 22.8	< 37.2		NC	NC	NC
2,3,7,8-TCDF	9307-14	9307-14	< 31.2	16.75	(J)	NC	NC	NC
2,3,7,8-TCDF	9307-7	9307-7	< 41.5	< 39.9		NC	NC	NC
2,3,7,8-TCDF	9307-8	9307-8	< 43	< 44.9		NC	NC	NC
2,3,7,8-TCDF	9307-9	9307-9	< 46.2	< 39.6		NC	NC	NC
OCDD	9307-7	9307-7	< 207.4	< 199.6		NC	NC	NC
OCDD	9307-8	9307-8	< 214.9	< 224.5		NC	NC	NC
OCDD	9307-9	9307-9	< 231.2	< 198.2		NC	NC	NC
OCDF	9307-12	9307-12	< 216.7	< 118.1		NC	NC	NC
OCDF	9307-13	9307-13	< 114.1	< 185.8		NC	NC	NC
OCDF	9307-14	9307-14	< 155.9	< 155.7		NC	NC	NC
OCDF	9307-7	9307-7	< 207.4	< 199.6		NC	NC	NC
OCDF	9307-8	9307-8	< 214.9	< 224.5		NC	NC	NC

Compiled: 20 May 1995

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TABLE B3 DETAILED LISTING OF DUPLICATE RESULTS, BIOTA SAMPLES, HOLLOMAN SEWAGE LAGOONS AND LAKES INVESTIGATION

Parameter	Sample ID	Duplicate Sample ID	Value	Duplicate Value	Mean Value	Standard Deviation	RPD (%)
OCDF	9307-9	9307-9	< 231.2	< 198.2	NC	NC	NC
Method = SW846 - Percent Moisture							
Type = Laboratory Replicate (%)							
Percent Moisture	9307-12	9307-12	75.6	75.6	75.6	0.0	0
Percent Moisture	9307-5	9307-5	74.5	74.5	74.5	0.0	0

NC = Not Calculable ND = Not Detected () = Data Flag * - Value considered suspect, Refer to QC Report

APPENDIX E

Risk-Based Screening Tables

RISK BASED SCREENING FOR SOIL

FACILITY: HOLLOMAN LAKES

Sample Date: 05/01/95

SWMU: POND C MEDIA: SLUDGE

Chemical Name	CAS Number	Oral RfD mg/kg/day	Oral SF $(mg/kg/day)^{-1}$	Frequency of Detection	Maximum Detection mg/kg	Mean mg/kg	Standard Deviation	UCL mg/kg	EPA REGION III, RESIDENTIAL Screening Level mg/kg	Reg. Ratio	Meets Criteria
Dieldrin	60-57-1	.50000E-4	.16000E+2	3/13	.430000E-2	.199320E-2	.115340E-2	.256340E-2	.39920E-1	0.10771	NO
Kepone	143-50-0	.00000E+0	.18000E+2	1/8	.360000E-2	.185010E-2	.134860E-2	.275340E-2	.35484E-1	0.10145	NO
alpha-BHC	319-84-6	.00000E+0	.63000E+1	5/13	.100000E-2	.141600E-3	.276100E-3	.278000E-3	.10138E+0	0.00986	NO
Tin	7440-31-5	.60000E+0	.00000E+0	7/13	.279000E+2	.125430E+2	.961558E+1	.172961E+2	.46928E+4	0.00595	NO
gamma-BHC	58-89-9	.30000E-3	.13000E+1	4/13	.130000E-2	.456400E-3	.380300E-3	.644400E-3	.49132E+0	0.00265	NO
gamma-BHC	58-89-9	.30000E-3	.13000E+1	4/13	.130000E-2	.456400E-3	.380300E-3	.644400E-3	.49132E+0	0.00265	NO

Parameters used in this report:

Body weight, adult	70.00000	kg
Body weight, child	15.00000	kg
Lifetime	70	years
Exposure Duration	30	years
Exposure Frequency	350	days/year
Exposure Interval	0.00	sec.
Absorption Factor	1.00000	
Soil Intake Assumption, adult	0.10000	g/day
Soil Intake Assumption, child	0.20000	g/day
Age-adjusted Soil Ingestion Factor	114.29000	mg-yr/kg-day
Cancer Risk, Class A,B	.00000100	
Cancer Risk, Class C	.00000100	
Hazard Quotient	0.10000	

True Soil Porosity	0.50000	
True Soil/Particulate Density	0.00000	g/cm^3
Averaging Time	70.00000	years
Area of Contamination	50000000.00	cm^2
Side Length of Contaminated Area	0.00000	m
Diffusion Height	0.00000	m
Inhalation Rate	0.00000	m^3/day
Wind Speed	0.00000	m/sec
Mean Annual Wind Speed	4.50000	m/sec
Equivalent Threshold Wind Speed	12.80000	m/sec
Vegetative Cover	0.00000	
Um/Ut Function	0.04970	
Decision Factor	1.00000	

E-1

RISK BASED SCREENING FOR SOIL

FACILITY: HOLLOMAN LAKES

Sample Date: 05/10/95

SWMU: POND D MEDIA: SLUDGE

Chemical Name	CAS Number	Oral RfD mg/kg/day	Oral SF $(mg/kg/day)^{-1}$	Frequency of Detection	Maximum Detection mg/kg	Mean mg/kg	Standard Deviation	UCL mg/kg	EPA REGION III, RESIDENTIAL Screening Level mg/kg	Reg. Ratio	Meets Criteria
Beryllium	7440-41-7	.50000E-2	.43000E+1	7/16	.810000E+0	.305861E+0	.273132E+0	.425565E+0	.14854E+0	5.45304	YES
Thallium	7440-28-0	.80000E-4	.00000E+0	1/10	.120000E+1	.669998E+0	.319076E+0	.854960E+0	.62571E+0	1.91781	YES
Silver	7440-22-4	.50000E-2	.00000E+0	14/16	.124000E+2	.412523E+1	.321714E+1	.553518E+1	.39107E+2	0.31708	NO
Copper	7440-50-8	.37000E-1	.00000E+0	16/16	.444000E+2	.190625E+2	.121164E+2	.243726E+2	.28939E+3	0.15342	NO
alpha-BHC	319-84-6	.00000E+0	.63000E+1	4/6	.170000E-2	.731500E-3	.718800E-3	.132290E-2	.10138E+0	0.01677	NO
alpha-BHC	319-84-6	.00000E+0	.63000E+1	4/6	.170000E-2	.731500E-3	.718800E-3	.132290E-2	.10138E+0	0.01677	NO
Aldrin	309-00-2	.30000E-4	.17000E+2	1/6	.260000E-3	.155400E-3	.656000E-4	.209300E-3	.37572E-1	0.00692	NO
Tin	7440-31-5	.60000E+0	.00000E+0	2/6	.140000E+2	.844026E+1	.440955E+1	.120677E+2	.46928E+4	0.00298	NO
Endosulfan II	33213-65-9	.60000E-2	.00000E+0	2/6	.290000E-2	.125350E-2	.101210E-2	.208600E-2	.46928E+2	0.00006	NO

Parameters used in this report:

Body weight, adult	70.00000	kg
Body weight, child	15.00000	kg
Lifetime	70	years
Exposure Duration	30	years
Exposure Frequency	350	days/year
Exposure Interval	0.00	sec.
Absorption Factor	1.00000	
Soil Intake Assumption, adult	0.10000	g/day
Soil Intake Assumption, child	0.20000	g/day
Age-adjusted Soil Ingestion Factor	114.29000	mg-yr/kg-day
Cancer Risk, Class A,B	.00000100	
Cancer Risk, Class C	.00000100	
Hazard Quotient	0.10000	

True Soil Porosity	0.50000	
True Soil/Particulate Density	0.00000	g/cm^3
Averaging Time	70.00000	years
Area of Contamination	50000000.00	cm^2
Side Length of Contaminated Area	0.00000	m
Diffusion Height	0.00000	m
Inhalation Rate	0.00000	m^3/day
Wind Speed	0.00000	m/sec
Mean Annual Wind Speed	4.50000	m/sec
Equivalent Threshold Wind Speed	12.80000	m/sec
Vegetative Cover	0.00000	
Um/Ut Function	0.04970	
Decision Factor	1.00000	

E-2

RISK BASED SCREENING FOR SOIL

FACILITY: HOLLOMAN LAKES

Sample Date: 05/01/95

SWMU: POND E MEDIA: SLUDGE

Chemical Name	CAS Number	Oral RfD mg/kg/day	Oral SF $(mg/kg/day)^{-1}$	Frequency of Detection	Maximum Detection mg/kg	Mean mg/kg	Standard Deviation	UCL mg/kg	EPA REGION III, RESIDENTIAL Screening Level mg/kg	Reg. Ratio	Meets Criteria
Beryllium	7440-41-7	.50000E-2	.43000E+1	7/16	.530000E+0	.223712E+0	.172954E+0	.299511E+0	.14854E+0	3.56804	YES
Thallium	7440-28-0	.80000E-4	.00000E+0	1/16	.180000E+1	.837532E+0	.592035E+0	.109699E+1	.62571E+0	2.87671	YES
Cobalt	7440-48-4	.60000E-1	.00000E+0	16/16	.590000E+1	.308125E+1	.154799E+1	.375967E+1	.46928E+3	0.01257	NO
Dieldrin	60-57-1	.50000E-4	.16000E+2	1/16	.310000E-3	.145500E-3	.852000E-4	.182900E-3	.39920E-1	0.00777	NO
gamma-BHC	58-89-9	.30000E-3	.13000E+1	1/16	.580000E-3	.237300E-3	.177000E-3	.314900E-3	.49132E+0	0.00118	NO

Parameters used in this report:

Body weight, adult	70.00000	kg
Body weight, child	15.00000	kg
Lifetime	70	years
Exposure Duration	30	years
Exposure Frequency	350	days/year
Exposure Interval	0.00	sec.
Absorption Factor	1.00000	
Soil Intake Assumption, adult	0.10000	g/day
Soil Intake Assumption, child	0.20000	g/day
Age-adjusted Soil Ingestion Factor	114.29000	mg-yr/kg-day
Cancer Risk, Class A,B	.00000100	
Cancer Risk, Class C	.00000100	
Hazard Quotient	0.10000	

True Soil Porosity	0.50000	
True Soil/Particulate Density	0.00000	g/cm^3
Averaging Time	70.00000	years
Area of Contamination	50000000.00	cm^2
Side Length of Contaminated Area	0.00000	m
Diffusion Height	0.00000	m
Inhalation Rate	0.00000	m^3/day
Wind Speed	0.00000	m/sec
Mean Annual Wind Speed	4.50000	m/sec
Equivalent Threshold Wind Speed	12.80000	m/sec
Vegetative Cover	0.00000	
Um/Ut Function	0.04970	
Decision Factor	1.00000	

RISK BASED SCREENING FOR SOIL

FACILITY: HOLLOMAN LAKES

Sample Date: 05/01/95

SWMU: POND G MEDIA: SLUDGE

Chemical Name	CAS Number	Oral RfD mg/kg/day	Oral SF $(mg/kg/day)^{-1}$	Frequency of Detection	Maximum Detection mg/kg	Mean mg/kg	Standard Deviation	UCL mg/kg	EPA REGION III, RESIDENTIAL Screening Level mg/kg	Reg. Ratio	Meets Criteria
Kepone	143-50-0	.00000E+0	.18000E+2	1/12	.700000E-2	.254770E-2	.183400E-2	.349850E-2	.35484E-1	0.19727	NO
Silver	7440-22-4	.50000E-2	.00000E+0	11/19	.660000E+1	.240999E+1	.214467E+1	.326319E+1	.39107E+2	0.16877	NO
Chlordane	57-74-9	.60000E-4	.13000E+1	3/19	.360000E-1	.884840E-2	.973100E-2	.127196E-1	.46928E+0	0.07671	NO
Heptachlor epoxide	1024-57-3	.10000E-4	.91000E+1	4/19	.160000E-2	.169100E-3	.410200E-3	.332300E-3	.70189E-1	0.02280	NO
Dieldrin	60-57-1	.50000E-4	.16000E+2	1/19	.520000E-3	.317400E-3	.144600E-3	.374900E-3	.39920E-1	0.01303	NO
gamma-BHC	58-89-9	.30000E-3	.13000E+1	2/19	.170000E-3	.976000E-4	.404000E-4	.113600E-3	.49132E+0	0.00035	NO
delta-BHC	319-86-8	.45000E-3	.00000E+0	2/19	.830000E-3	.321500E-3	.191100E-3	.397500E-3	.35196E+1	0.00024	NO

Parameters used in this report:

Body weight, adult	70.00000	kg
Body weight, child	15.00000	kg
Lifetime	70	years
Exposure Duration	30	years
Exposure Frequency	350	days/year
Exposure Interval	0.00	sec.
Absorption Factor	1.00000	
Soil Intake Assumption, adult	0.10000	g/day
Soil Intake Assumption, child	0.20000	g/day
Age-adjusted Soil Ingestion Factor	114.29000	mg-yr/kg-day
Cancer Risk, Class A,B	.00000100	
Cancer Risk, Class C	.00000100	
Hazard Quotient	0.10000	

True Soil Porosity	0.50000	
True Soil/Particulate Density	0.00000	g/cm^3
Averaging Time	70.00000	years
Area of Contamination	50000000.00	cm^2
Side Length of Contaminated Area	0.00000	m
Diffusion Height	0.00000	m
Inhalation Rate	0.00000	m^3/day
Wind Speed	0.00000	m/sec
Mean Annual Wind Speed	4.50000	m/sec
Equivalent Threshold Wind Speed	12.80000	m/sec
Vegetative Cover	0.00000	
Um/Ut Function	0.04970	
Decision Factor	1.00000	

F-4

RISK BASED SCREENING FOR SOIL

FACILITY: HOLLOMAN LAKES

Sample Date: 05/01/95

SWMU: DITCH MEDIA: SOIL

Chemical Name	CAS Number	Oral RfD mg/kg/day	Oral SF $(mg/kg/day)^{-1}$	Frequency of Detection	Maximum Detection mg/kg	Mean mg/kg	Standard Deviation	UCL mg/kg	EPA REGION III, RESIDENTIAL Screening Level mg/kg	Reg. Ratio	Meets Criteria
Chlordane	57-74-9	.60000E-4	.13000E+1	1/4	.150000E+0	.396623E-1	.735759E-1	.126237E+0	.46928E+0	0.31963	NO
Dieldrin	60-57-1	.50000E-4	.16000E+2	1/4	.720000E-3	.547300E-3	.246500E-3	.837300E-3	.39920E-1	0.01804	NO
Endrin	72-20-8	.30000E-3	.00000E+0	1/4	.170000E-2	.908400E-3	.699900E-3	.173200E-2	.23464E+1	0.00072	NO
Methoxychlor	72-43-5	.50000E-2	.00000E+0	1/4	.230000E-3	.132200E-3	.693000E-4	.213700E-3	.39107E+2	0.00001	NO
Endosulfan Sulfate	1031-07-8	.60000E-2	.00000E+0	1/4	.240000E-4	.137000E-4	.930000E-5	.246000E-4	.46928E+2	0.00000	NO

Parameters used in this report:

Body weight, adult	70.00000	kg
Body weight, child	15.00000	kg
Lifetime	70	years
Exposure Duration	30	years
Exposure Frequency	350	days/year
Exposure Interval	0.00	sec.
Absorption Factor	1.00000	
Soil Intake Assumption, adult	0.10000	g/day
Soil Intake Assumption, child	0.20000	g/day
Age-adjusted Soil Ingestion Factor	114.29000	mg-yr/kg-day
Cancer Risk, Class A,B	.00000100	
Cancer Risk, Class C	.00000100	
Hazard Quotient	0.10000	

True Soil Porosity	0.50000	
True Soil/Particulate Density	0.00000	g/cm^3
Averaging Time	70.00000	years
Area of Contamination	50000000.00	cm^2
Side Length of Contaminated Area	0.00000	m
Diffusion Height	0.00000	m
Inhalation Rate	0.00000	m^3/day
Wind Speed	0.00000	m/sec
Mean Annual Wind Speed	4.50000	m/sec
Equivalent Threshold Wind Speed	12.80000	m/sec
Vegetative Cover	0.00000	
Um/Ut Function	0.04970	
Decision Factor	1.00000	

RISK BASED SCREENING FOR SOIL

FACILITY: HOLLOMAN LAKES

Sample Date: 05/01/95

SWMU: LAKE HOLLOMAN

MEDIA: SLUDGE

Chemical Name	CAS Number	Oral RfD mg/kg/day	Oral SF $(mg/kg/day)^{-1}$	Frequency of Detection	Maximum Detection mg/kg	Mean mg/kg	Standard Deviation	UCL mg/kg	EPA REGION III, RESIDENTIAL Screening Level mg/kg	Reg. Ratio	Meets Criteria
Beryllium	7440-41-7	.50000E-2	.43000E+1	9/25	.350000E+1	.444507E+0	.668551E+0	.673270E+0	.14854E+0	23.56253	YES
Thallium	7440-28-0	.80000E-4	.00000E+0	5/25	.350000E+1	.814526E+0	.795329E+0	.108666E+1	.62571E+0	5.59361	YES
Chlordane	57-74-9	.60000E-4	.13000E+1	13/25	.360000E+0	.194034E-1	.712235E-1	.437744E-1	.46928E+0	0.76712	NO
Kepone	143-50-0	.00000E+0	.18000E+2	1/15	.170000E-1	.874840E-2	.559330E-2	.112921E-1	.35484E-1	0.47908	NO
Cadmium (food)	7440-43-9F	.50000E-3	.00000E+0	1/25	.180000E+1	.717112E+0	.479484E+0	.881180E+0	.39107E+1	0.46027	NO
Silver	7440-22-4	.50000E-2	.00000E+0	10/25	.470000E+1	.108162E+1	.110503E+1	.145974E+1	.39107E+2	0.12018	NO

Parameters used in this report:

Body weight, adult	70.00000	kg
Body weight, child	15.00000	kg
Lifetime	70	years
Exposure Duration	30	years
Exposure Frequency	350	days/year
Exposure Interval	0.00	sec.
Absorption Factor	1.00000	
Soil Intake Assumption, adult	0.10000	g/day
Soil Intake Assumption, child	0.20000	g/day
Age-adjusted Soil Ingestion Factor	114.29000	mg-yr/kg-day
Cancer Risk, Class A,B	.00000100	
Cancer Risk, Class C	.00000100	
Hazard Quotient	0.10000	

True Soil Porosity	0.50000	
True Soil/Particulate Density	0.00000	g/cm^3
Averaging Time	70.00000	years
Area of Contamination	50000000.00	cm^2
Side Length of Contaminated Area	0.00000	m
Diffusion Height	0.00000	m
Inhalation Rate	0.00000	m^3/day
Wind Speed	0.00000	m/sec
Mean Annual Wind Speed	4.50000	m/sec
Equivalent Threshold Wind Speed	12.80000	m/sec
Vegetative Cover	0.00000	
Um/Ut Function	0.04970	
Decision Factor	1.00000	

RISK BASED SCREENING FOR SOIL

FACILITY: HOLLOMAN LAKES

Sample Date: 05/01/95

SWMU: LAKE STINKY MEDIA: SOIL

Chemical Name	CAS Number	Oral RfD mg/kg/day	Oral SF $(mg/kg/day)^{-1}$	Frequency of Detection	Maximum Detection mg/kg	Mean mg/kg	Standard Deviation	UCL mg/kg	EPA REGION III, RESIDENTIAL Screening Level mg/kg	Reg. Ratio	Meets Criteria
Dieldrin	60-57-1	.50000E-4	.16000E+2	5/11	.420000E-2	.610600E-3	.129150E-2	.131630E-2	.39920E-1	0.10521	NO
Copper	7440-50-8	.37000E-1	.00000E+0	11/11	.900000E+1	.590000E+1	.188838E+1	.693196E+1	.28939E+3	0.03110	NO
Heptachlor	76-44-8	.50000E-3	.45000E+1	4/11	.210000E-2	.333300E-3	.643400E-3	.684900E-3	.14193E+0	0.01480	NO
4,4'-DDT	50-29-3	.50000E-3	.34000E+0	3/11	.520000E-2	.109460E-2	.152070E-2	.192560E-2	.18786E+1	0.00277	NO
4,4'-DDD	72-54-8	.00000E+0	.24000E+0	3/11	.160000E-3	.281000E-4	.457000E-4	.530000E-4	.26613E+1	0.00006	NO

Parameters used in this report:

Body weight, adult	70.00000	kg
Body weight, child	15.00000	kg
Lifetime	70	years
Exposure Duration	30	years
Exposure Frequency	350	days/year
Exposure Interval	0.00	sec.
Absorption Factor	1.00000	
Soil Intake Assumption, adult	0.10000	g/day
Soil Intake Assumption, child	0.20000	g/day
Age-adjusted Soil Ingestion Factor	114.29000	mg-yr/kg-day
Cancer Risk, Class A,B	.00000100	
Cancer Risk, Class C	.00000100	
Hazard Quotient	0.10000	

True Soil Porosity	0.50000	
True Soil/Particulate Density	0.00000	g/cm^3
Averaging Time	70.00000	years
Area of Contamination	50000000.00	cm^2
Side Length of Contaminated Area	0.00000	m
Diffusion Height	0.00000	m
Inhalation Rate	0.00000	m^3/day
Wind Speed	0.00000	m/sec
Mean Annual Wind Speed	4.50000	m/sec
Equivalent Threshold Wind Speed	12.80000	m/sec
Vegetative Cover	0.00000	
Um/Ut Function	0.04970	
Decision Factor	1.00000	

APPENDIX F

Updated Site-Specific Human Health Risk Assessments

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Appendix F
UPDATED SITE-SPECIFIC HUMAN HEALTH RISK ASSESSMENTS

This appendix presents the risk updates to the 1993 human health risk assessment for each individual site at the sewage lagoons and lakes. Sections F.2 through F.11 present the total cancer risk estimates and noncancer hazard indices for each exposure scenario at each site. An overview of the conclusions about the human health risk estimates for the sewage lagoons and lakes is presented in Section 4 of the risk assessment addendum report.

In general, health risks to human receptors at a given site are restricted to the contaminants detected at that site. There are, however, two exceptions to this general approach.

The first concerns the current/future recreational scenario at Pond G, the ditch, and the lakes where hunters could ingest waterfowl (ducks) caught at a given site. Since these birds could feed at one or more of these sites, contaminants found in their meat could also be related to all sites. Given the possibility of contaminant uptake from multiple sources, the contaminants detected in the duck taken from Pond G, were used in estimating health risks for all these sites. Therefore, cancer risk and noncancer hazard estimates for this scenario are the same at Pond G, the ditch, and the lakes. It should be noted for the purposes of this risk assessment it is assumed that the duck lived only at the sewage lagoons and lakes, but in reality it is known that the home range of the duck extends outside the boundaries of Holloman AFB.

The second exception deals with the inhalation of fugitive dusts and volatile chemicals at Lakes Holloman and Stinky. An air dispersion model was used to estimate contaminant concentrations in air over both lakes. The key assumption used in this model was that the soil from Lake Stinky was the only source from which the contaminants in air originated. This assumption was made because most of Lake Stinky dries up in the summer months, which exposes the underlying soil. Then, contaminants from the dried portions of the lake bed may volatilize or, through wind-blown action, become suspended in air and disperse over both lakes. Therefore, Lake Stinky is the only contaminant source for airborne matter at both Lakes Holloman and Stinky.

F.1 Summary of Exposure Scenarios

The exposure scenarios selected in the 1993 risk assessment were reevaluated for use in the risk assessment addendum. More current information is known about the future uses of the impoundments. It is now known that Ponds A through F will not be used in the new wastewater treatment plant and will therefore be taken out of service, meaning they will no longer receive wastewater. Remediation or closure activities associated with Ponds A through F will be performed using standard OSHA requirements to preclude any potential exposures to hazardous conditions/constituents. In addition, the land encompassing the lakes has been acquired by Holloman AFB. Grazing is not allowed on these lands with the exception of the portion occupied by Lake

Stinky on the south side of Highway 70. Lakes Holloman and Stinky are still accessible to the general public. The differences in 1993 and the updated exposure scenarios are discussed below.

F.1.1 Exposure Scenarios Evaluated in the 1993 Report

Five exposure scenarios were evaluated in the 1993 risk assessment to estimate cancer risks and noncancer hazards at the sewage lagoons and lakes. These five scenarios, their exposure pathways, and the sites they are associated with are presented below. The rationale for selecting these scenarios and the exposure parameters used to estimate health risks are presented in the 1993 risk assessment report (Radian, 1993a).

1) **Current On-site Worker (chronic and subchronic).** This exposure scenario was evaluated at Ponds A through G and the ditch. The exposure pathways associated with this scenario were dermal contact with surface water, soil, sludge, and sediment.

2) **Current/Future Recreational—Hunters and Bird watchers (chronic and subchronic).** This scenario was evaluated at Pond G, the ditch, and the lakes for both children and adults.

   Hunters—The exposure pathways associated with these individuals were the following:

   - Dermal contact with surface water, soil, sludge, and sediment;
   - Ingestion of surface water;
   - Ingestion of waterfowl; and
   - Inhalation of fugitive dust.

   Bird Watchers—The exposure pathways associated with these individuals were identical to those for hunters except for the ingestion of waterfowl.

3) **Current/Future Trespasser—Teenager (subchronic).** Because Ponds A through F are fenced, this exposure scenario was evaluated only at Pond G. Pond G is also fenced but because of its remote location, trespassers have been observed within the fence boundary. The exposure pathways associated with this scenario are 1) ingestion of surface water and 2) dermal contact with surface water, soil, sludge, and/or sediment.

4) **Future Beef Consumer—Agricultural (chronic).** This exposure scenario was evaluated at Ponds A through G and Lakes Holloman and Stinky. In this scenario, adults and children were exposed to contaminants in the groundwater below the sewage lagoons and lakes by ingesting the meat from cattle that directly ingested this

water, which was pumped and used as stock water, and foraged on grasses that were assumed to be irrigated by the groundwater.

5) **Future On-site Worker (subchronic).** This exposure scenario was evaluated at Ponds A through F. The future on-site worker scenario addressed the short-term exposure pathways associated with dewatering and backfilling operations that could occur when the sewage lagoons are removed from service. As a subchronic exposure scenario, only noncancer health hazards were estimated. In this setting, workers were assumed to come in contact with contaminants through the following routes of exposure:

- Inhalation of fugitive dusts and volatile chemicals from soil and sludge;
- Ingestion of soil and sludge; and
- Dermal contact with soil, sludge, and/or sediment.

F.1.2 Exposure Scenarios Evaluated in the Addendum

In this addendum, three exposure scenarios were evaluated using the same exposure parameters and pathways as shown in the 1993 report. These exposure scenarios are:

1) Current On-site Worker;

2) Current/Future Recreational—Hunters (chronic and subchronic); and

3) Current/Future Trespasser—Teenager (subchronic).

Although the Future Beef Consumer scenario was evaluated at Ponds A-G and Lake Holloman in the 1993 risk assessment, this scenario is only evaluated at Lake Stinky in this addendum. Currently, cattle could potentially graze on the lower portion of Lake Stinky (south of highway 70) but are precluded from grazing on all other areas of the sewage lagoons and lakes. Because current grazing restrictions are likely to remain the same in the future, Lake Stinky is the only viable source of chemical uptake for cattle.

The future on-site worker scenario is not evaluated in this addendum since worker exposure would be regulated by Holloman AFB using OSHA health and safety requirements.

F.1.3 Risk Evaluations

For each carcinogenic chemical of concern (COC), the incremental probability that an individual will develop cancer over a lifetime was estimated from projected intake levels and cancer potency factors. The USEPA Superfund site remediation goal set forth in the National Contingency Plan allows a cancer risk of 1E-4 (1 in 10,000) to 1E-6 (1 in a million). This range is designed to

be protective of human health. For risk management decisions, a cancer risk of 1E-6 is considered a level of negligible risk.

For noncarcinogenic COCs it is assumed there is an exposure level below which it is unlikely that adverse health effects will occur (even for sensitive populations such as children). For noncarcinogens then, there may be concern for potential noncancer effects when the hazard quotient (for individual chemicals) or hazard index (for multiple COCs) exceeds 1.0. In general the greater the value above 1.0, the greater the level of concern.

Both the 1993 and updated risk evaluations used the 1E-6 to 1E-4 range for cancer risks and a noncarcinogenic hazard index of 1 to indicate which sites and constituents had potential risks under the exposure scenarios that were evaluated. If the risk estimates were below these values, the site or exposure scenario was assumed to pose no risk.

Although the health risks at each site in the sewage lagoons and lakes are evaluated separately (in Sections F.2 through F.11) in this addendum, the toxicity values used to estimate cancer and noncancer risks at these sites are the same. These values are provided in Table F-1. This table lists the chronic and subchronic toxicity values for all COCs at the sewage lagoons and lakes.

F.2. Pond A

F.2.1 1993 Risk Assessment Results

The three exposure scenarios considered at Pond A in the 1993 risk assessment were:

- Current On-site Worker
  - — Chronic
  - — Subchronic
- Future Beef Consumer (Agricultural) (chronic)
  - — Adult
  - — Child
- Future On-site Worker
  - — Subchronic

The results of the 1993 human health risk assessment for Pond A are summarized in Table F-2. This table lists the COCs and exposure pathways that drove the overall risk estimates for each exposure scenario associated with the site in the 1993 assessment. Cancer risk estimates at Pond A exceeded 1E-6 only for the current worker scenario and the noncancer hazard indices exceeded 1.0 for both current and future worker scenarios. In both occupational scenarios, dermal contact with contaminants in sludge was the primary exposure pathway of concern.

Table F-1
Toxicity Values Used in the Risk Assessment Addendum

Analyte	EPA Class	Subchronic RfD (mg/kg-day) Oral		Subchronic RfD (mg/kg-day) Dermal	d	Chronic RfD (mg/kg-day) Oral		Chronic RfD (mg/kg-day) Dermal	d	Chronic Slope Factor 1/(kg-day/mg) Oral		Chronic Slope Factor 1/(kg-day/mg) Dermal	d	Chronic Inhalation URV 1/(ug/m3)	
2,4'-DDE	--	--		--		--		--		--		--		--	
4,4'-DDD	B2	5.0 E-4	*a*	5.0 E-4		5.0 E-4	*a*	5.0 E-4		2.4 E-1	*I*	2.4 E-1		--	
4,4'-DDE	B2	3.9 E-3	*a*	3.9 E-3		3.9 E-3	*a*	3.9 E-3		3.4 E-1	*I*	3.4 E-1		--	
4,4'-DDT	B2	5.0 E-4	*H*	5.0 E-4		5.0 E-4	*I*	5.0 E-4		3.4 E-1	*I*	3.4 E-1		9.7 E-5	*I*
Aldrin	B2	3.0 E-5	*H*	7.5 E-5		3.0 E-5	*I*	7.5 E-5		1.7 E+1	*I*	1.7 E+1		4.9 E-3	*I*
alpha-BHC	B2	--		--		--		--		6.3 E+0	*I*	6.3 E+0		1.8 E-3	*I*
Antimony	--	4.0 E-4	*H*	4.0 E-4		4.0 E-4	*I*	4.0 E-4		--		--		--	
Beryllium	B2	5.0 E-3	*H*	--		5.0 E-3	*I*	--		4.3 E+0	*I*	4.3 E+0		2.4 E-3	*I*
Cadmium (food)	B1	1.0 E-3	*a*	1.0 E-3		1.0 E-3	*I*	1.0 E-3		--		--		--	
Chromium III	--	1.0 E+0	*a*	1.0 E+0		1.0 E+0	*I*	1.0 E+0		--		--		--	
delta-BHC	--	2.0 E-3	*b*	2.0 E-3		2.0 E-4	*b*	2.0 E-4		--		--		--	
Dieldrin	B2	5.0 E-5	*H*	6.5 E-5		5.0 E-5	*I*	6.5 E-5		1.6 E+1	*I*	1.6 E+1		4.6 E-3	*I*
Endosulfan II	--	--		--		8.0 E+1	*c*	8.0 E+1		--		--		--	
Endosulfan sulfate	--	6.0 E-3	*H*	2.5 E-2		6.0 E-3	*I*	2.5 E-2		--		--		--	
Endrin	D	3.0 E-4	*H*	6.0 E-4		3.0 E-4	*I*	6.0 E-4		--		--		--	
gamma-BHC	--	3.0 E-3	*H*	3.0 E-2		3.0 E-4	*I*	3.0 E-3		--		--		--	
gamma-Chlordane (*h*)	--	6.0 E-5	*H*	6.0 E-5		6.0 E-5	*I*	6.0 E-5		1.3 E+0	*I*	1.3 E+0		3.7 E-4	*I*
Heptachlor	B2	5.0 E-4	*H*	9.7 E-4		5.0 E-4	*I*	9.7 E-4		4.5 E+0	*I*	4.5 E+0		1.3 E-3	*I*

Table F-1
(Continued)

Analyte	EPA Class	Sub-Chronic RfD (mg/kg-day) Oral		Sub-Chronic RfD (mg/kg-day) Dermal *d*	Chronic RfD (mg/kg-day) Oral		Chronic RfD (mg/kg-day) Dermal *d*	Chronic Slope Factor (kg-day/mg) Oral		Chronic Slope Factor (kg-day/mg) Dermal *d*	Chronic Inhal. URV 1/(ug/m3)	
Hexachlorobenzene	B2	--		--	8.0 E-4	*I*	8.0 E-4	1.6 E+0	*I*	1.6 E+0	4.6 E-4	*I*
Kepone	--	--		--	4.0 E-5	*e*	4.0 E-5	1.8 E+0	*f*	1.8 E+0	--	
Mercury	D	3.0 E-4	*H*	--	3.0 E-4	*H*	3.0 E-4	--		--	--	
Methoxychlor	D	5.0 E-3	*H*	7.6 E-2	5.0 E-3	*I*	7.6 E-2	--		--	--	
Nickel	A	2.0 E-2	*H*	--	2.0 E-2	*I*	--	--		--	2.4 E-4	*I*
Oxychlordane (*h*)	--	6.0 E-5	*H*	6.0 E-5	6.0 E-5	*I*	6.0 E-5	1.3 E+0	*I*	1.3 E+0	3.7 E-4	*I*
PCBs (total)	B2	--		--	7.0 E-5	*g*	7.0 E-5	7.7 E+0	*I*	7.7 E+0	--	
Selenium	D	5.0 E-3	*H*	--	5.0 E-3	*I*	--	--		--	--	
Silver	D	5.0 E-3	*H*	--	5.0 E-3		--	--		--	--	
Thallium	D	9.0 E-4	*H*	9.0 E-4	9.0 E-5	*I*	9.0 E-5	--		--	--	
trans-Nonachlor (*h*)	--	6.0 E-5	*H*	6.0 E-5	6.0 E-5	*I*	6.0 E-5	1.3 E+0	*I*	1.3 E+0	3.7 E-4	*I*

a Calculated value; based on analyte's relative potency to DDT. See Appendix G of the 1993 risk assessment. (Radian, 1993a)
b Calculated value; based on analyte's relative potency to gamma-BHC. See Appendix G of the 1993 risk assessment. (Radian, 1993a)
c Calculated value; based on analyte's relative potency to Endosulfan. See Appendix G of the 1993 risk assessment. (Radian, 1993a)
d Rationale for selecting dermal toxicity values is described in Appendix G of the 1993 risk assessment. (Radian, 1993a)
e Calculated value; based on analyte's relative potency to Mirex. See Appendix G of the 1993 risk assessment. (Radian, 1993a)
f Value from ECAO as reported in the 1995 EPA Region III screening tables (EPA, 1995b).
g Value for Aroclor 1016; IRIS, first quarter 1995.
h Values for Chlordane used as surrogate.

H HEAST, 1994.
I IRIS, January 1995.

RfD = Reference Dose RfC = Reference Concentration URV = Unit Risk Value -- = No Value Available

Note: Chronic and subchronic Inhalation RfCs were not available for any of the analytes listed.

Table F-2
Summary of the 1993 Risk Assessment Results
Pond A

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current On-site Worker					
(chronic)	Cancer Risk	*2 E-6*	*8 E-5*	***Average:***	
				* ***Heptachlor Epoxide (100%)***	Dermal Contact - Sludge
				Reasonable Maximum:	
				* ***Heptachlor Epoxide (94%)***	
				Aroclor-1254 (4%)	Dermal Contact - Sludge
				Aroclor-1260 (2%)	Dermal Contact - Sludge
(chronic)	Hazard Index	0.1	*2*	* ***Heptachlor Epoxide (99%)***	Dermal Contact - Sludge
(subchronic)	Hazard Index	0.1	*2*	* ***Heptachlor Epoxide (99%)***	Dermal Contact - Sludge
Future					
Beef Consumer					
Adult	Cancer Risk	1 E-8	3 E-7	NA	NA
	Hazard Index	0.09	0.4		
Child	Cancer Risk	NA	NA	NA	NA
	Hazard Index	0.2	0.8		
Future					
On-site Worker	Cancer Risk	NA	NA		
(subchronic)	Hazard Index	*39*	*147*	* ***Heptachlor Epoxide (100%)***	Dermal Contact - Sludge

* These analytes have not been detected (ND) at the sewage lagoon system during subsequent investigations and are no longer COPCs at these sites. Therefore, these analytes do not contribute to overall risk estimates at the sewage lagoon system.

NA = Not Applicable

F.2.2 Summary of Additional Sampling

The 1993 risk assessment assumed that contact with contaminants at Pond A could occur through direct or indirect exposure to groundwater, surface water, soil, sludge, and/or sediment. Table F-3 presents the media sampled and evaluated for the 1993 risk assessment and the media sampled during the 1994 investigation along with the indication of whether or not COCs were selected from either investigation.

Table F-3
Media Sampled in Pond A

Exposure Media	1993 Risk Assessment		1994 Investigation	
	Media Sampled	COPCs Detected	Media Sampled	COPCs Detected
Groundwater	x	x		
Surface Water	x	x		
Soil	x	x		
Sludge/Sediment	x	x	x	x

For the 1995 addendum, only sludge was sampled during the 1994 investigation. The rationale used in selecting which exposure media would be sampled during the 1994 investigation is presented in the following sections by medium.

Groundwater

The future beef consumer scenario was the only setting associated with exposure to groundwater in the 1993 risk assessment. In this scenario it was assumed that cattle could drink the groundwater, used as stock water, and ingest grasses irrigated by groundwater. Human exposure could then occur when the meat of these cattle was ingested. In reality, the groundwater is too saline to be used for these purposes. Cancer risk and noncancer hazard estimates for this scenario were below 1E-6 and 1.0, respectively, in 1993. In the addendum this exposure scenario was not evaluated for the following reasons:

1) Holloman AFB has established Base-wide management strategies that reduce further contamination of surface water and groundwater throughout the sewage lagoons and lakes;

2) The groundwater beneath Holloman AFB is unfit for human consumption and is too saline for watering livestock; therefore, it is unlikely that cattle would ingest the contaminants in groundwater; and

3) Livestock are not allowed to graze in this area of Holloman AFB.

Surface Water and Soil

These media were not resampled for the addendum since the cancer and noncancer risk estimates for both worker scenarios were driven entirely by the analytes found in the sludge at Pond A.

Sludge

Sludge samples were collected from Pond A in 1995 and were analyzed for PCBs and toxicity characteristic leaching procedure (TCLP) metals. Because sludge was removed from Pond A in 1990, risk estimates for this addendum were obtained using data from the 1993 and 1995 sample sets only. These data sets were used exclusively since they best represents current contaminant levels in Pond A sludge.

In the 1993 risk assessment, cancer risk estimates were driven by heptachlor epoxide (a suspect analyte) and PCBs (Aroclor-1254 and -1260). As stated in Section 1.1.3 of the risk assessment addendum report, heptachlor epoxide was not detected at the sewage lagoons and lakes in the 1994 investigation and was eliminated as a COC in both the 1993 risk assessment and the addendum. Therefore, heptachlor epoxide does not contribute to the overall cancer risk or noncancer hazard estimates in the current and future occupational scenarios at Pond A.

From the 1995 data set, Aroclor-1254 was the only PCB, and the only analyte, detected in sludge at Pond A; therefore, it is the only analyte selected as a COC in sludge for Pond A in 1995. Even though the 1995 data set was used exclusively to select COCs for Pond A in this addendum, risk estimates were recalculated for Aroclor-1254 using the risk ratio method described in Section F.2.3. The risk ratio method was chosen since Aroclor-1254 was a COC in both 1993 and 1995. This does not mean that the 1993 and 1995 data were combined. Rather, risks were calculated based on the relative change in contaminant concentration between 1993 and 1995. A detailed discussion of the risk ratio method is provided in Section 3.2 of the risk assessment addendum report.

F.2.3 1995 Risk Ratios

Analytes that had a risk ratio greater than 1.0, or contributed at least 1% to the overall risk value in the 1993 risk assessment (risk drivers) were used to compute new risk values. On the basis of either of these two selection criteria the COCs chosen for further evaluation at Pond A are shown below.

Risk Ratios > 1.0

No risk ratios were greater than 1.0 for Pond A.

Risk Drivers

Aroclor-1254 contributed at least 1% to overall noncancer risk in 1993. The average risk ratio was 0.4, while the reasonable maximum was 0.5. Aroclor-1260 also was a risk contributor in 1993, but was not detected in sludge in 1995. Since sludge was removed from Pond A in 1990, and Aroclor-1260 was not detected in 1995, risk ratios equal to 0.0 were assigned to this analyte.

Table F-4 shows the updated risk estimates for these COCs based on their risk ratios.

F.2.4 Summary of Updated Results

Table F-5 summarizes the cancer and noncancer risk estimates for the exposure scenarios at Pond A. A discussion of the risk estimates for each of these scenarios is presented below.

F.2.5 Conclusions

Current On-site Worker

In this scenario, the total cancer risk estimates are driven entirely by dermal exposure to Aroclor-1254 in sludge. Other exposure pathways do not contribute significantly to these risk estimates. Cancer risk estimates for the average exposure case is less than 1E-6 and for the reasonable maximum is 2E-6. The estimated noncancer hazard index is less than 1.0 for both chronic and subchronic exposure cases.

Although the reasonable maximum risk estimate is slightly above 1E-6, the lower end of the superfund risk range goal for carcinogens, risks from dermal contact with sludge will be mitigated once the sewage lagoon is removed from active service.

F.3 Pond B

F.3.1 1993 Risk Assessment Results

The three exposure scenarios considered in the 1993 risk assessment at Pond B were:

- Current On-site Worker
  - — Chronic
  - — Subchronic

- Future Beef Consumer (Agricultural) (subchronic)
  - — Adult
  - — Child

Table F-4
1995 Risk Assessment Results for the COPCs in Sludge
Based on Their Risk Ratios
Pond A

Exposure Scenario	Primary Exposure Pathway	1993 Risk Assessment Results		1995 Risk Assessment Results				
		Noncancer Hazard	Cancer Risk	Risk Ratio	Adjusted Noncancer Hazard	Adjusted Cancer Risk	Relative Change In 1993 Risk Value: Noncancer Hazard	Relative Change In 1993 Risk Value: Cancer Risk
Current On-site Worker								
	Dermal Contact							
Average								
Aroclor-1254		< 1	6.7 E-8	0.4	--	2.7 E-8	--	-4.0 E-8
Aroclor-1260		< 1	3.3 E-8	0.0	--	0.0 E+0	--	-3.3 E-8
Total		< 1	**1 E-7**		--	**3 E-8**	--	**-7 E-8**
Reasonable Maximum	Dermal Contact							
Aroclor-1254		< 1	3.2 E-6	0.5	--	1.6 E-6	--	-1.6 E-6
Aroclor-1260		< 1	1.5 E-6	0.0	--	0.0 E+0	--	-1.5 E-6
Total		< 1	**5 E-6**		--	**2 E-6**	--	**-3 E-6**

Relative change = (1995 adjusted risk value) - (1993 risk value).

-- = No Value Available

Table F-5
Summary of the 1995 Risk Assessment Results
Pond A

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker					
(chronic)	Cancer Risk				
	93 Results (a)	1 E-7	*5 E-6*	***Reas. Max. Only***	
				Aroclor-1254 (68%)	Dermal Contact - Sludge
				Aroclor-1260 (32%)	Dermal Contact - Sludge
	95 Ratios (b)	-7 E-8	-3 E-6	NA	NA
	95 New COPCs	–	–		
	Total Risk	3 E-8	*2 E-6*	***Aroclor-1254 (100%)***	Dermal Contact - Sludge
(chronic)	Hazard Index	0.001	0.02	NA	NA
(subchronic)	Hazard Index	0.001	0.02	NA	NA

– = No Value Available
NA = Not Applicable

(a) Risk values shown here do not present contribution of heptachlor epoxide since it was eliminated as a COPC. See discussion in Section 1.1.2 of the report.

(b) Values shown are the relative change in the 1993 risk value, which are based on the 1995 risk ratios. Refer to Table F-4 for a complete listing of these values.

- Future On-site Worker
  — Subchronic

The results of the 1993 human health risk assessment for Pond B are summarized in Table F-6. This table lists the COCs and exposure pathways that drove the overall risk estimates for each exposure scenario associated with the site in the 1993 assessment.

Cancer risk estimates exceeded 1E-6 only in the current on-site worker scenario and the noncancer hazard index exceeded 1.0 only in the future on-site worker scenario. Cancer risk estimates for the current worker scenario were driven primarily by dermal contact with PCBs in sludge. In the future worker scenario, noncancer hazard risks were driven primarily by the inhalation of manganese dust from soils below the sludge at Pond B. Since the 1993 risk assessment it has been determined that closure activities at the Pond will not involve any disturbance of the soil, so this pathway will be eliminated.

F.3.2 Summary of Additional Sampling

The 1993 risk assessment assumed that contact with contaminants at Pond B could occur through direct or indirect exposure to groundwater, surface water, soil, and/or sludge. Table F-7 presents the media sampled and evaluated for the 1993 risk assessment and the media sampled during the 1994 investigation along with an indication of whether or not COCs were detected from either investigation.

For the 1995 addendum, only sludge was sampled during the 1994 investigation. The rationale used in selecting which exposure media would be sampled during the 1994 investigation is presented in the following sections by medium.

Groundwater

The future beef consumer scenario was the only setting associated with exposure to groundwater in the 1993 risk assessment. In this scenario it is assumed that cattle could drink the groundwater, used as stock water, and ingest grasses irrigated by groundwater. Human exposure could then occur when the meat of these cattle was ingested. In reality, the groundwater is too saline for these uses. Cancer risk and noncancer hazard estimates for this scenario were below 1E-6 and 1.0, respectively, in 1993. In the 1995 addendum this exposure scenario is not evaluated for the following reasons:

1) Holloman AFB has established Base-wide management strategies that reduce further contamination of surface water and groundwater throughout the sewage lagoons and lakes;

Table F-6
Summary of the 1993 Risk Assessment Results
Pond B

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker	Cancer Risk	8 E-8	*4 E-6*	*Arolcor-1254 (65%)*	Dermal Contact - Sludge
(chronic)				*Aroclor-1260 (25%)*	Dermal Contact - Sludge
				Benzo[a]pyrene (3%)	Dermal Contact - Sludge
				4,4'-DDE (3%)	Dermal Contact - Surface water
				Chlordane (2%)	Dermal Contact - Surface water
(chronic)	Hazard Index	0.02	0.8	NA	NA
(subchronic)	Hazard Index	0.02	0.8	NA	NA
Future					
Beef Consumer					
Adult	Cancer Risk	1 E-8	3 E-7	NA	NA
	Hazard Index	0.09	0.4		
Child	Cancer Risk	NA	NA	NA	NA
	Hazard Index	0.2	0.8		
Future					
On-site Worker	Cancer Risk	NA	NA		
(subchronic)	Hazard Index	0.4	*7*	*Manganese (91%)*	Inhalation - Dust
				Arsenic (5%)	Ingestion & Dermal contact - Sludge/Sediment
				Silver (2%)	Ingestion & Dermal contact - Sludge/Sediment
				Mercury (2%)	Ingestion & Dermal contact - Sludge/Sediment

NA = Not Applicable

Table F-7
Media Sampled in Pond B

Exposure Media	1993 Risk Assessment		1994 Investigation	
	Media Sampled	COPCs Detected	Media Sampled	COPCs Detected
Groundwater	x	x		
Surface Water	x	x		
Soil	x	x		
Sludge		x	x	x

2) The groundwater beneath Holloman AFB is unfit for human consumption and is too salty for watering livestock; therefore, it is unlikely that cattle would ingest the contaminants in groundwater; and

3) Livestock are not allowed to graze in this area of Holloman AFB.

Surface Water

Additional surface water samples were not collected, since cancer and noncancer risk estimates for both worker scenarios were driven primarily by contaminants in the soil, sludge, and sediments at Pond B.

Soil

Soil samples were not collected from Pond B during the 1994 investigation. In the 1993 risk assessment, exposure to the manganese, arsenic, silver, and mercury in Pond B soil, however, resulted in a noncancer hazard index of 6.7 for the future on-site worker scenario. However, as discussed in Section F.1.2, the future on-site worker scenario was eliminated in the 1995 risk addendum.

Sludge

Sludge samples were collected from Pond B in 1995 and were analyzed for the presence of PCBs and TCLP metals. Because sludge was removed from Pond B in 1990, risk estimates for this addendum were obtained using data from the 1995 sample set only. This data set was used exclusively since it best represents current contaminant levels in Pond B sludge.

In the 1993 risk assessment, two PCBs (Aroclor-1254 and -1260) and benzo(a)pyrene were the primary cancer risk drivers found in sludge. Since the laboratory methods used to analyze the 1995 sludge samples were not designed to detect benzo(a)pyrene, the 1993 cancer risk estimates from this COC were carried over into the 1995 addendum and used to estimate the overall cancer risk estimates in 1995. Likewise, these sludge samples were not analyzed for the presence of total metals (EPA Method SW6010). As such, the noncancer risk estimates reported in 1993 for arsenic, silver, and mercury were also carried over from the 1993 risk assessment and summed with all of the 1995 noncancer risk estimates.

From the 1995 data set, Aroclor-1254 was the only PCB, and the only analyte detected in sludge at Pond B; therefore, it is the only analyte selected as a COC for Pond B in 1995. Even though the 1995 data set was used exclusively to select COCs for Pond B in this addendum, risk estimates were recalculated for Aroclor-1254 using the risk ratio method described in Section F.3.3. This risk ratio method was chosen since Aroclor-1254 was a COC in both 1993 and 1995. This does not mean that the 1993 and 1995 data were combined. Rather, 1995 risks were calculated based on the relative change in exposure concentrations measured between 1993 and 1995. A detailed

discussion of the risk ratio method is provided in Section 3.2 of the risk assessment addendum report.

F.3.3 1995 Risk Ratios

Analytes that had a risk ratio greater than 1.0 or that contributed at least 1% to the overall risk value in the 1993 assessment (risk drivers) were used to compute new risk values. On the basis of either of these two selection criteria, the COCs chosen for further evaluation at Pond B are shown below.

Risk Ratios > 1.0

No risk ratios were greater than 1.0 since only the 1995 data set was used to determine COCs.

Risk Drivers

Aroclor-1254 contributed at least 1% to overall noncancer risk estimates in 1993. The average risk ratio was 0.4, while the reasonable maximum was 0.5. Aroclor-1260 also was a risk contributor in 1993, but was not detected in sludge in 1995. Since sludge was removed from Pond B in 1990, and Aroclor-1260 was not detected in 1995, risk ratios equal to 0.0 were assigned to this analyte.

Table F-8 shows the 1995 updated risk estimates for these COCs based on their risk ratios.

F.3.4 Summary of 1995 Results

Table F-9 presents the cancer risk and noncancer hazard estimates for the on-site worker scenarios at Pond B. The average cancer risk estimated for this scenario is less than 1E-6. The estimated reasonable maximum cancer risk is 2E-6 and is based primarily on dermal contact with Aroclor-1254 and benzo(a)pyrene found in the sludge at Pond B. These two analytes account for 83% of the total risk value at Pond B. The remaining COCs that contribute to this total cancer risk estimate are found in surface water and sludge at this site. Their contribution to the overall risk estimate is 3E-7.

The estimated average and reasonable maximum noncancer hazard indices are less than 1.0 for both chronic and subchronic exposure cases.

F.3.5 Conclusions

Although the reasonable maximum risk estimate is slightly above 1E-6, the lower end of the superfund risk range goal for carcinogens, risks from dermal contact with sludge will be mitigated once Pond B is removed from active service.

Table F-8
1995 Risk Assessment Results for the COCs in Sludge Based on Their Risk Ratios
Pond B

Exposure Scenario	Primary Exposure Pathway	1993 Risk Assessment Results		1995 Risk Assessment Results				
							Relative Change In 1993 Risk Value	
		Noncancer Hazard	Cancer Risk	Risk Ratio	Adjusted Noncancer Hazard	Adjusted Cancer Risk	Noncancer Hazard	Cancer Risk
Current On-site Worker								
	Dermal Contact							
Average								
Aroclor-1254		< 1	5.4 E-8	0.4	--	2.2 E-8	--	-3.2 E-8
Aroclor-1260		< 1	2.2 E-8	0.0	--	0.0 E+0	--	-2.2 E-8
Total		< 1	**8 E-8**		--	**2 E-8**	--	**-5 E-8**
Reasonable Maximum	Dermal Contact							
Aroclor-1254		< 1	2.6 E-6	0.5	--	1.3 E-6	--	-1.3 E-6
Aroclor-1260		< 1	1.0 E-6	0.0	--	0.0 E+0	--	-1.0 E-6
Total		< 1	**4 E-6**		--	**1 E-6**	--	**-2 E-6**

-- = No Value Available

Relative change = (1995 adjusted risk value) - (1993 risk value).

Table F-9
Summary of the 1995 Risk Assessment Results
Pond B

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker	Cancer Risk				
(chronic)	93 Results	8E-08	*4 E-6*	***Reas. Max. Only***	
				Aroclor-1254 (65%)	Dermal Contact - Sludge
				Aroclor-1260 (25%)	Dermal Contact - Sludge
				Benzo[a]pyrene (3%)	Dermal Contact - Sludge
				4,4'-DDE (3%)	Dermal Contact - Surface water
				Chlordane (2%)	Dermal Contact - Surface water
	95 Ratios (a)	-5 E-8	*-2 E-6*	NA	NA
	95 New COPCs	--	--		
	Total Risk	3 E-8	*2 E-6*	***Reas. Max. Only***	
				Arolcor-1254 (76%)	Dermal Contact - Sludge
				Benzo[a]Pyrene (7%)	Dermal Contact - Sludge
				4,4'-DDE (8%)	Dermal Contact - Surface water
				Chlordane (4%)	Dermal Contact - Surface water
(chronic)	Hazard Index				
	93 Results	0.02	0.8	NA	NA
	95 Ratios (a)	--	--		
	95 New COPCs	--	--		
	Total Hazard	0.02	0.8		
(subchronic)	Hazard Index				
	93 Results	0.02	0.8	NA	NA
	95 Ratios (a)	--	--		
	95 New COPCs	--	--		
	Total Hazard	0.02	0.8		

-- = No Value Available
NA = Not Applicable

(a) Values shown are the "relative change in the 1993 risks" which are based on the 1995 Risk Ratios. Refer to Table F-6 for a complete listing of these values.

F.4 Pond C

F.4.1 1993 Risk Assessment Summary

The following three exposure scenarios were considered at Pond C in the 1993 risk assessment:

- Current On-site Worker
  — Chronic
  — Subchronic

- Future Beef Consumer (Agricultural) (subchronic)
  — Adult
  — Child

- Future On-site Worker
  — Subchronic

The results of the 1993 human health risk assessment for Pond C are summarized in Table F-10. This table lists the COCs and exposure pathways that drove the overall risk estimates for each exposure scenario associated with the site in the 1993 assessment.

Cancer risk estimates were less than 1E-6 for all three exposure scenarios at Pond C. Noncancer hazard indices exceeded 1.0 only in the reasonable maximum exposure case for the future worker scenario. In this scenario, the total estimated noncancer hazard index was driven primarily by the inhalation of manganese dust from soil. Since the 1993 risk assessment it has been determined that closure activities at Pond C will not involve any disturbance of the soil, so this pathway will be eliminated. In addition any intrusive actions related to potential construction activities would preclude exposure to hazardous constituents/conditions by following OSHA requirements.

F.4.2 Summary of Additional Sampling

The 1993 risk assessment assumed that contact with contaminants at Pond C could occur through direct or indirect exposure to groundwater, surface water, soil, and/or sludge. Table F-11 presents the media that were sampled and evaluated for the 1993 risk assessment and the media sampled during the 1994 investigation along with an indication of whether or not COCs were detected from either investigation.

For the 1995 addendum, only sludge and surface water were sampled during the 1994 investigation. The rationale used in selecting which exposure media would be sampled during the 1994 investigation is presented in the following sections by medium.

Table F-10
Summary of the 1993 Risk Assessment Results
Pond C

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker (chronic)	Cancer Risk	2 E-9	1 E-7	NA	NA
	Hazard Index	0.0003	0.006		
(subchronic)	Hazard Index	0.0003	0.006	NA	NA
Future					
Beef Consumer					
Adult	Cancer Risk	2 E-8	5 E-7	NA	NA
	Hazard Index	0.0003	0.002		
Child	Cancer Risk	NA	NA	NA	NA
	Hazard Index	0.0007	0.006		
Future					
On-site Worker (subchronic)	Cancer Risk	NA	NA		
	Hazard Index	0.4	7	***Manganese (92%)***	Inhalation - Dust
				Endosulfan I (3%)	Ingestion and Dermal contact - Sludge
				Silver (2%)	Ingestion and Dermal contact - Sludge
				Cyanide (1%)	Ingestion and Dermal contact - Sludge

NA = Not Applicable

Table F-11
Media Sampled in Pond C

Exposure Media	1993 Risk Assessment		1994 Investigation	
	Media Sampled	COPCs Detected	Media Sampled	COPCs Detected
Groundwater	x	x		
Surface Water	x	x	x	x
Soil	x	x		
Sludge	x	x	x	x

Groundwater

The future beef consumer scenario was the only setting associated with exposure to groundwater in the 1993 risk assessment. In this scenario it was assumed that cattle could drink the groundwater, used as stock water, and ingest grasses irrigated by groundwater. Human exposure could then occur when the meat of these cattle was ingested. In reality, the groundwater is too saline for these uses. Cancer risk and noncancer hazard estimates for this scenario were less than 1E-6 and 1.0, respectively, in 1993. In the 1995 addendum this exposure scenario was not evaluated for the following reasons:

1) Holloman AFB has established Base-wide management strategies that reduce further contamination of surface water and groundwater throughout the sewage lagoons and lakes;

2) The groundwater beneath Holloman AFB is unfit for human consumption and is too salty for watering livestock; therefore, it is unlikely that cattle would ingest the contaminants in groundwater; and

3) Livestock are not allowed to graze in this area of Holloman AFB.

Surface Water

Organic lead (a suspect analyte) was conservatively selected as a COC in surface water in the 1993 Risk Assessment. Organic lead was questionable since it was found at similar levels in equipment rinsate samples and was found at concentrations greater than those for total lead throughout the sewage lagoons and lakes. Surface water samples were collected from Pond C in 1994 as part of a sampling plan designed to confirm the presence of absence of organic lead at the sewage lagoons and lakes. The presence was disproven as discussed in Section 1.1.2 of the risk assessment addendum report. Cancer risk and noncancer hazard estimates from exposure to surface water at Pond C were less than 1E-06 and 1, respectively.

Soil

Soil samples were not collected from Pond C during the 1994 investigation. In the 1993 risk assessment, exposure to the manganese in Pond C soils, however, resulted in a noncancer hazard index of 7 for the future on-site worker scenario. Since the soils at Pond C underlie the sewage lagoon and the soil is not expected to be disturbed during closure activities this exposure pathway has been eliminated. Should intrusive action occur during construction or closure activities, the use of proper personal protective equipment would preclude the exposure to hazardous conditions/constituents.

Sludge

Additional sludge samples were collected from Pond C in 1994 and were analyzed for the presence of organochlorine pesticides and metals.

Of all analytes in sludge that contributed greater than 1% to overall noncancer health risk estimates in 1993, silver and endosulfan I were the only COCs detected in the 1994 sludge samples. Both these analytes were once again selected as COCs in 1995. Because they were COCs in both 1993 and 1995, risk estimates for all exposure pathways associated with silver and endosulfan I were recalculated using the risk ratio method. The risk ratios for these COCs are listed in Section F.4.3. Cyanide also contributed greater than 1% to the overall noncancer hazard estimates in 1993; the 1994 samples were not analyzed for this analyte. Therefore, the noncancer hazards estimated in 1993 for cyanide were summed with the 1995 risk estimates in this addendum.

The results of the 1994 sampling also indicated that four new analytes were detected in the sludge at Pond C. These COCs and their respective exposure concentrations are presented in Table F-12.

Table F-12
Exposure Concentrations of the New COCs at Pond C

Analyte	Sludge (mg/kg)	
	Average	Reas. Max
alpha-BHC	1.40E-04	2.80E-04
gamma-BHC	4.60E-04	6.40E-04
Dieldrin	2.00E-03	2.60E-03
Kepone (J)	1.90E-03	2.80E-03

J = Exposure concentrations based on estimated value; detected below reporting limit.

Although all four of these new COCs were detected at concentrations below the EPA Region III residential screening level for soil, they were retained as COCs. This was done because all four are pesticides that have been frequently detected at Holloman AFB. Section F.4.4 discusses the use of these COCs in deriving risk estimates for new COCs in 1995.

F.4.3 1995 Risk Ratios

Analytes that have a risk ratio greater than 1.0, or that contributed at least 1% to the overall risk value in the 1993 risk assessment (risk drivers), were included in the computation of risk values.

On the basis of either of these two selection criteria, the COCs chosen for further evaluation at Pond C are shown below.

Risk Ratios > 1.0

There are no COCs in sludge that had a risk ratio greater than 1.0.

Risk Drivers

Endosulfan I and silver were selected as COCs since they contributed at least 1% to overall noncancer risk estimates in 1993. For endosulfan I, the risk ratio for average and reasonable maximum risks was 0.4. For silver, the risk ratio for the average risk was 0.9, and for the reasonable maximum risk was 0.8.

Table F-13 shows the 1995 updated risk estimates for these COCs based on their risk ratios.

F.4.4 New COCs in 1995

Since four new COCs (alpha-BHC, gamma-BHC, dieldrin, and kepone) were detected in the sludge at Pond C, risk estimates were recalculated for all exposure scenarios that included sludge as one of the potential media of concern.

The exposure scenario and pathway evaluated in 1995 included dermal contact with sludge for a current on-site worker.

The exposure concentrations for the new COCs are listed in Table F-12, and Table F-1 presents the toxicity values used in estimating risk estimates at Pond C.

F.4.5 Summary of 1995 Results

Table F-14 presents the 1995 cancer risk and noncancer hazard estimates for current worker scenarios at Pond C.

The average and reasonable maximum cancer risks estimated for this scenario were both less than 1E-6. The average and reasonable maximum noncancer hazard indices are estimated to be less than 1.0 for both chronic and subchronic exposure cases.

Cancer Risks—The total cancer risk values in this scenario are based on the sum of the 1993 risk estimates and the new COCs found in the 1994 sludge samples. In 1993, cancer risk estimates for both the average and reasonable maximum exposure case were less than 1E-6. In 1995, the average and reasonable maximum are 4 E-11 and 2E-9, respectively. The pathway- and chemical-specific cancer risk estimates for the new COCs are listed in Appendix G, Table G-1.

Table F-13
1995 Risk Assessment Results for the COCs in Sludge
Based on Their Risk Ratios
Pond C

Exposure Scenario	Primary Exposure Pathway	1993 Risk Assessment Results		1995 Risk Assessment Results				
		Noncancer Hazard	Cancer Risk	Risk Ratio	Adjusted Noncancer Hazard	Adjusted Cancer Risk	Relative Change In 1993 Risk Value: Noncancer Hazard	Relative Change In 1993 Risk Value: Cancer Risk
Current On-site Worker (chronic & subchronic)	Dermal Contact							
Average								
Endosulfan I		3.0 E-7	--	0.4	1.2 E-7	--	-1.8 E-7	--
Silver		1.7 E-5	--	0.9	1.6 E-5	--	-1.7 E-6	--
Total		**2 E-5**			**2 E-5**		**-2 E-6**	
Reasonable Maximum	Dermal Contact							
Endosulfan I		8.8 E-6	--	0.4	3.6 E-6	--	-5.2 E-6	--
Silver		4.0 E-4	--	0.8	3.0 E-4	--	-9.5 E-5	--
Total		**4 E-4**			**4 E-6**		**-4 E-4**	
Future On-site Worker (subchronic)	Dermal Contact and Ingestion							
Average								
Endosulfan I		3.9 E-2	--	0.4	1.6 E-2	--	-2.3 E-2	--
Silver		1.3 E-2	--	0.9	1.2 E-2	--	-1.3 E-3	--
Total		**5 E-2**			**3 E-2**		**-2 E-2**	
Reasonable Maximum	Dermal Contact and Ingestion							
Endosulfan 1		2.0 E-2	--	0.4	8.2 E-3	--	-1.2 E-2	--
Silver		1.6 E-1	--	0.8	1.2 E-1	--	-3.9 E-2	--
Total		**2 E-1**			**8 E-3**		**-2 E-1**	

-- = No Value Available

Relative change = (1995 adjusted risk value) - (1993 risk value).

Table F-14
Summary of the 1995 Risk Assessment Results
Pond C

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker					
(chronic)	Cancer Risk				
	'93 Results	2.0 E-9	1.0 E-7		
	'95 Ratios (a)	–	–	NA	NA
	'95 New COPCs	4.3 E-11	2 E-9		
	Total	2 E-9	1 E-7		
(chronic & subchronic)					
	Hazard Index				
	'93 Results	3 E-4	2 E-3		
	'95 Ratios (a)	-2 E-6	-4 E-4	NA	NA
	'95 New COPCs	1 E-5	6 E-4		
	Total	0.0003	0.002		

– = No Value Available
NA = Not Applicable

(a) Values shown are the "relative change in the 1993 risks" which are based on the 1995 Risk Ratios. Refer to Table F-10 for a complete listing of these values.

Noncancer Hazards—The noncancer hazard indices for this scenario are based on the sum of the 1993 estimates, the relative change in the 1993 estimates based on the 1995 risk ratios, and the results from the new COCs found in the sludge during the 1994 sampling period. The noncancer hazard quotients that are based on the 1995 risk ratios (the "Relative Change in 1993 Risk") are shown in Table F-13. The pathway- and chemical-specific noncancer hazard quotient for the new COCs are listed in Appendix G, Table G-2.

F.4.6 Conclusions

Cancer risk estimates are less than 1E-6 and noncancer hazard indices are less than 1.0 in the current on-site worker scenario.

F.5 Pond D

F.5.1 1993 Risk Assessment Results

The following three exposure scenarios were considered at Pond D in the 1993 risk assessment:

- Current On-site Worker
  - — Chronic
  - — Subchronic
- Future Beef Consumer (Agricultural) (subchronic)
  - — Adult
  - — Child
- Future On-site Worker
  - — Subchronic

The results of the 1993 human health risk assessment for Pond D are summarized in Table F-15. This table lists the COCs and exposure pathways that drove the overall risk estimates for each exposure scenario associated with the site in the 1993 assessment. Cancer risk estimates were less than 1E-6 and noncancer hazard indices were less than 1.0 for all exposure scenarios at Pond D.

F.5.2 Summary of Additional Sampling

The 1993 risk assessment assumed that contact with contaminants at Pond D could occur through direct or indirect exposure to groundwater, surface water, soil, and/or sludge. Table F-16 presents the media that were sampled and evaluated for the 1993 risk assessment and those sampled during the 1994 investigation and include an indication of whether or not COCs were detected from either investigation.

Table F-15
Summary of the 1993 Risk Assessment Results
Pond D

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Exposure Pathway
Current					
On-site Worker					
(chronic)	Cancer Risk	2 E-10	1 E-8	NA	NA
	Hazard Index	0.02	0.8		
(subchronic)	Hazard Index	0.02	0.8	NA	NA
Future					
Beef Consumer					
Adult	Cancer Risk	2 E-8	4 E-7	NA	NA
	Hazard Index	0.0005	0.0040		
Child	Cancer Risk	NA	NA	NA	NA
	Hazard Index	0.001	0.009		
Future					
On-site Worker					
(subchronic)	Cancer Risk	NA	NA	NA	NA
	Hazard Index	0.002	0.030		

NA = Not Applicable

Table F-16
Media Sampled in Pond D

Exposure Media	1993 Risk Assessment		1994 Investigation	
	Media Sampled	COPCs Detected	Media Sampled	COPCs Detected
Groundwater	x	x		
Surface Water	x	x	x	
Soil	x	x		
Sludge			x	x

For the 1995 addendum, sludge and surface water were sampled during the 1994 investigation. The rationale used in selecting which exposure media would be sampled during the 1994 investigation is presented in the following sections by medium.

Groundwater

The future beef consumer scenario was the only setting associated with exposure to groundwater in the 1993 risk assessment. In this scenario it was assumed that cattle could drink groundwater, that is used as stock water, and ingest grasses irrigated by groundwater. Human exposure could then occur when the meat of these cattle was ingested. In reality the groundwater is too saline for these uses. Cancer risk and noncancer hazard estimates for this scenario were less than 1E-6 and 1.0, respectively, in 1993. In the 1995 addendum this exposure pathway was not evaluated for the following reasons:

1) Holloman AFB has established Base-wide management strategies that reduce further contamination of surface water and groundwater throughout the sewage lagoons and lakes;

2) The groundwater beneath Holloman AFB is unfit for human consumption and is too salty for watering livestock; therefore, it is unlikely that cattle would ingest the contaminants in groundwater; and

3) Livestock are not allowed to graze in this area of Holloman AFB.

Surface Water

Organic lead (a suspect analyte) was conservatively selected as a COC in surface water in the 1993 risk assessment. Organic lead was questionable since it was found at similar levels in equipment rinsate samples and was found at concentrations greater than those for total lead throughout the sewage lagoons and lakes. Surface water samples were collected from Pond D in 1994 as part of a sampling plan designed to confirm or disprove the presence of organic lead. Cancer risk and noncancer hazard estimates from exposure to surface water at Pond D were less than 1E-06 and 1, respectively.

Soil

Soil samples were collected from the bottom of Pond D for the 1993 risk assessment, since all sludge had been removed prior to the sample investigation for the 1993 report. During the 1994 investigation, sludge was present and sludge samples were collected in the same locations of the previous soil samples. Cancer and noncancer health risk estimates in 1993 were well below 1E-6 and 1.0, respectively, for all scenarios associated with exposure to soil at Pond D.

Sludge

The sludge was removed from Pond D prior to sample collection for the 1993 risk assessment. Sludge samples were collected during the 1994 investigation and analyzed for the presence of organochlorine pesticides and metals.

Five analytes were detected in the recent sludge samples that had not previously been identified in the soils at Pond D. These COCs and their respective exposure concentrations are listed in Table F-17.

Table F-17
Exposure Concentrations for the
New COCs at Pond D

Analyte	Sludge (mg/kg)	
	Average	Reas. Max
Aldrin	1.60E-04	2.10E-04
alpha-BHC	7.30E-04	1.30E-03
Beryllium	6.10E-01	7.60E-01
Endosulfan II	1.30E-03	2.10E-03
Thallium	6.70E-01	8.50E-01

F.5.3 1995 Risk Ratios

Risk ratios were calculated for the COCs at Pond D using the exposure concentrations of the 1993 soils data and 1994/1995 sludge data. Although the risk ratios were generated using two different media, the exposure routes, exposure duration, and resultant risk estimates for both soil and sludge were identical.

Analytes that have a risk ratio greater than 1.0, or that contributed at least 1% to the overall risk value in the 1993 risk assessment (risk drivers), were used to compute new risk values. On the basis of either of these two selection criteria, the COCs chosen for further evaluation at Pond D are shown below.

Risk Ratios > 1.0

Arsenic, 4,4'-DDE, 4,4'-DDT, and chlordane were selected as COCs in sludge since their risk ratios were greater than 1.0

Risk Drivers

There were no risk drivers in the data set for Pond D since cancer risk estimates were less than 1E-6 and noncancer hazard estimates were less than 1.0.

The risk ratios for each of these COCs are presented below.

COC	Average	Reas. Max.
4,4'-DDE	1.1	0.8
4,4'-DDT	1.5	1.3
Arsenic	1.4	1.3
Chlordane	5.1	10.3

Table F-18 shows the 1995 updated risk estimates for these COCs based on their risk ratios.

F.5.4 New COCs in 1995

Since five new COCs (aldrin, alpha-BHC, beryllium, endosulfan II, and thallium) were detected in the sludge at Pond D, risk estimates were recalculated for all exposure scenarios that include sludge as one of the potential media of concern.

The only exposure scenario and pathway evaluated for the new COCs was dermal contact with sludge for a current on-site worker (chronic).

The exposure concentrations for the new COCs are listed in Table F-17, and Table F-1 presents the toxicity values used in estimating risk estimates at Pond D.

F.5.5 Summary of 1995 Results

Table F-19 presents the 1995 cancer risk and noncancer hazard estimates for current worker scenarios at Pond D.

The average and reasonable maximum cancer risks estimated for this scenario are both less than 1E-6. The estimated average and reasonable maximum noncancer hazard indices are less than 1.0 for both chronic and subchronic exposure cases.

Cancer Risks—The total cancer risk values in this scenario are based on the sum of the 1993 risk estimates, the relative change in the 1993 estimates based on the 1995 risk ratios, and the new COCs found in the 1994 sludge samples. The pathway- and chemical-specific cancer risk estimates for the new COCs are listed in Appendix G, Table G-3.

Noncancer Hazards—The noncancer hazard indices for this scenario are based on the sum of the 1993 estimates, the relative change in the 1993 estimates based on the 1995 risk ratios, and the results from the new COCs found in the sludge during the 1994 sampling period. The pathway- and chemical-specific noncancer hazard quotients estimated for the new COCs are listed in Appendix G, Table G-4.

Table F-18
1995 Risk Assessment Results for the COCs in Sludge
Based on Their Risk Ratios
Pond D

Exposure Scenario	Primary Exposure Pathway	1993 Risk Assessment Results		1995 Risk Assessment Results				
		Noncancer Hazard	Cancer Risk	Risk Ratio	Adjusted Noncancer Hazard	Adjusted Cancer Risk	Relative Change In 1993 Risk Value: Noncancer Hazard	Relative Change In 1993 Risk Value: Cancer Risk
Current On-site Worker (chronic & subchronic)	Dermal Contact							
Average								
4,4'-DDE		6.0 E-9	6.7 E-12	1.1	6.6 E-9	4.4 E-20	6.0 E-10	-6.7 E-12
4,4'-DDT		3.5 E-9	1.0 E-10	1.5	5.2 E-9	5.4 E-19	1.7 E-9	-1.0 E-10
Arsenic		1.9 E-7	0.0 E+0	1.4	2.6 E-7	0.0 E+0	7.5 E-8	0.0 E+0
Chlordane		3.4 E-8	9.5 E-13	5.1	1.7 E-7	4.9 E-12	1.4 E-7	3.9 E-12
Totals		**2 E-7**	**1 E-10**		**4 E-7**	**5 E-12**	**2 E-7**	**-1 E-10**
Reasonable Maximum	Dermal Contact							
4,4'-DDE		1.0 E-8	7.0 E-12	0.8	8.0 E-9	5.6 E-20	-2.0 E-9	-7.0 E-12
4,4'-DDT		8.0 E-8	1.0 E-10	1.3	1.0 E-7	1.0 E-17	2.4 E-8	-1.0 E-10
Arsenic		5.0 E-6	0.0 E+0	1.3	6.5 E-6	0.0 E+0	1.5 E-6	0.0 E+0
Chlordane		8.0 E-5	2.0 E-9	10.3	8.2 E-4	2.1 E-8	7.4 E-4	1.9 E-8
Totals		**9 E-5**	**2 E-9**		**8 E-4**	**2 E-8**	**7 E-4**	**2 E-8**

Table F-18
(Continued)

Exposure Scenario	Primary Exposure Pathway	1993 Risk Assessment Results		1995 Risk Assessment Results				
							Relative Change In 1993 Risk Value	
		Noncancer Hazard	Cancer Risk	Risk Ratio	Adjusted Noncancer Hazard	Adjusted Cancer Risk	Noncancer Hazard	Cancer Risk
Future On-site Worker (subchronic)	Dermal Contact and Ingestion							
Average								
4,4'-DDE		--	--	1.1	--	--	--	--
4,4'-DDT		4.8 E-5	--	1.5	7.2 E-5	--	2.4 E-5	--
Arsenic		2.0 E-3	--	1.4	2.8 E-3	--	8.1 E-4	--
Chlordane		2.1 E-5	--	5.1	1.1 E-4	--	8.6 E-5	--
Totals		**2 E-3**			**3 E-3**		**9 E-4**	
Reasonable Maximum	Dermal Contact and Ingestion							
4,4'-DDE		--	--	0.8	--	--		
4,4'-DDT		3.9 E-3	--	1.3	5.1 E-3	--	1.2 E-3	--
Arsenic		2.7 E-2	--	1.3	3.5 E-2	--	8.0 E-3	--
Chlordane		7.9 E-5	--	10.3	8.1 E-4	--	7.3 E-4	--
Totals		**3 E-2**			**4 E-2**		**1 E-2**	

Relative change = (1995 adjusted risk value) - (1993 risk value).

-- = No Value Available

Table F-19
Summary of the 1995 Risk Assessment Results
Pond D

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker					
(chronic)	Cancer Risk				
	'93 Results	2 E-10	1 E-8		
	'95 Ratios (a)	-1 E-10	2 E-8	NA	NA
	'95 New COPCs	4 E-12	2 E-11		
	Total	1 E-10	3 E-8		
(chronic & subchronic)					
	Hazard Index				
	'93 Results	5 E-5	1 E-3		
	'95 Ratios (a)	2 E-7	7 E-4	NA	NA
	'95 New COPCs	3 E-6	4 E-6		
	Total	5 E-5	2 E-3		

NA = Not Applicable

(a) Values shown are the "relative change in the 1993 risks" which are based on the 1995 Risk Ratios. Refer to Table F-14 for a complete listing of these values.

F.5.6 Conclusions

Cancer risk and noncancer hazard indices are below 1E-06 and 1.0, respectively, for all exposure scenarios at Pond D.

F.6 Pond E

F.6.1 1993 Risk Assessment Results

The following three exposure scenarios were considered at Pond E in the 1993 risk assessment:

- Current On-site Worker
  - — Chronic
  - — Subchronic
- Future Beef Consumer (Agricultural) (subchronic)
  - — Adult
  - — Child
- Future On-site Worker
  - — Subchronic

The results of the 1993 human health risk assessment for Pond E are summarized in Table F-20. This table lists the COCs and exposure pathways that drove the overall risk estimates for each exposure scenario associated with the site in the 1993 assessment.

Cancer risk estimates were greater than 1E-6 only for the current worker scenario, and the noncancer hazard index exceeded 1.0 only in the future worker scenario which has been removed as an exposure scenario for the 1995 risk addendum. Both risks were excessive due to heptachlor epoxide (a suspect analyte) which, as discussed in Section 1.1.3 of the risk assessment addendum report, has been determined not to be present in the sewage lagoon media.

F.6.2 Summary of Additional Sampling

The 1993 risk assessment assumed that contact with contaminants at Pond E could occur through direct or indirect exposure to groundwater, surface water, soil, sludge, and/or sediment. Table F-21 presents the media that were sampled and evaluated for the 1993 risk assessment and the media sampled during the 1994 investigation as well as an indication of whether or not COCs were detected from either investigation.

Table F-20
Summary of the 1993 Risk Assessment Results
Pond E

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current On-site Worker					
(chronic)	Cancer Risk	4 E-7	*1 E-6*	* ***Heptachlor Epoxide (91%)***	Dermal Contact - Sludge
				4,4'-DDE (8% = 8 E-8)	Dermal Contact - Surface water
(chronic)	Hazard Index	0.04	0.6	NA	NA
(subchronic)	Hazard Index	0.04	0.6	NA	NA
Future					
Beef Consumer					
Adult	Cancer Risk	2 E-8	4 E-7	NA	NA
	Hazard Index	0.0009	0.006		
Child	Cancer Risk	NA	NA	NA	NA
	Hazard Index	0.002	0.01		
Future					
On-site Worker	Cancer Risk	NA	NA		
(subchronic)	Hazard Index	*17*	*63*	* ***Heptachlor Epoxide (99%)***	Ingestion & Dermal contact - Sludge

* These analytes have not been detected (ND) at the sewage lagoon system during subsequent investigations and are no longer COPCs at these sites. Therefore, these analytes do not contribute to overall risk estimates at the sewage lagoon system.

NA = Not Applicable

For the 1995 addendum, sludge and surface water were sampled during the 1994 investigation. The rationale used in selecting which exposure media would be sampled during the 1994 investigation is presented in the following sections by medium.

Groundwater

The future beef consumer scenario was the only setting associated with exposure to groundwater in the 1993 risk assessment. In this scenario it was assumed that cattle could drink the groundwater, used as stock water, and ingest grasses irrigated by groundwater. Human exposure could then occur when the meat of these cattle was ingested. In reality, the groundwater is too saline for these uses. Cancer risk and noncancer hazard estimates for this scenario were less than 1E-6 and 1.0, respectively, in 1993. In the 1995 addendum this exposure scenario was not evaluated for the following reasons:

1) Holloman AFB has established Base-wide management strategies which reduce further contamination of surface water and groundwater throughout the sewage lagoons and lakes;

2) The groundwater beneath Holloman AFB is unfit for human consumption and is too salty for watering livestock; therefore, it is unlikely that cattle would ingest the contaminants in groundwater; and

3) Livestock grazing is not allowed in this area of Holloman AFB.

Surface Water

Organic lead (a suspect analyte) was conservatively selected as a COC in surface water in the 1993 risk assessment. Organic lead was questionable since it was found at similar levels in equipment rinsate samples and was found at concentrations greater than those for total lead throughout the sewage lagoons and lakes. Surface water samples were collected from Pond E in 1994 as part of a sampling plan designed to confirm the presence or absence of organic lead. Cancer risk and noncancer hazard estimates from exposure to surface water at Pond E were less than 1E-06 and 1, respectively.

Soil

Soil samples were not collected for the 1995 addendum since cancer and noncancer health risk estimates were well below 1E-6 and 1.0, respectively, for all scenarios associated with exposure to soil at Pond E.

Sludge

Additional sludge samples were collected from Pond E in 1994 and were analyzed for the presence of organochlorine pesticides and metals. As stated in Section 1.1.3 of the risk assessment addendum report, heptachlor epoxide (a suspect analyte) was not detected at the sewage lagoons and

Table F-21
Media Sampled in Pond E

Exposure Media	1993 Risk Assessment		1994 Investigation	
	Media Sampled	COPCs Detected	Media Sampled	COPCs Detected
Groundwater	x	x		
Surface Water	x	x	x	
Soil	x	x		
Sludge/Sediment	x	x	x	x

lakes in the 1994 investigation and was eliminated as a COC in both the 1993 risk assessment and the 1995 addendum. Therefore, heptachlor epoxide does not contribute to the overall cancer risk or noncancer hazard estimates in the current and future occupational scenarios at Pond E. The results of the 1994 sampling indicated that four new analytes were detected in the sludge at Pond E. These COCs and their exposure concentrations are listed in Table F-22.

Table F-22
Exposure Concentrations for the New COCs at Pond E

Analyte	Sludge (mg/kg)	
	Average	Reas. Max.
Beryllium	2.2E-1	3.0E-1
gamma-BHC	2.4E-4	3.1E-4
Dieldrin	1.5E-4	1.8E-4
Thallium	8.1E-1	2.0 E+0

Although gamma-BHC and dieldrin were detected at concentrations below the EPA Region III residential screening level for soil, they were retained as COCs since they frequently detected at Holloman AFB. Section F.6.5 discusses the use of these COCs in deriving risk estimates for new COCs in 1995.

F.6.3 1995 Risk Ratios

Analytes that have a risk ratio greater than 1.0, or that contributed at least 1% to the overall risk value in the 1993 risk assessment (risk drivers), were used to compute new risk values. On the basis of either of these two selection criteria, the COCs chosen for further evaluation at Pond E are shown below.

Risk Ratios > 1.0

There were no COCs in sludge that had a risk ratio greater than 1.0.

Risk Drivers

There were no risk drivers in the data set for Pond E since cancer risk estimates were less than 1E-6 and noncancer hazard indices were less than 1.0.

F.6.4 New COCs in 1995

Since four new COCs (beryllium, gamma-BHC, dieldrin, and thallium) were detected in the sludge at Pond E, risk estimates were recalculated for all exposure scenarios that include sludge as one of the potential media of concern.

The only exposure scenario and pathway evaluated for the new COCs was dermal contact with sludge for the current on-site worker (chronic).

The exposure concentrations for the new COCs are listed in Table F-22, and Table F-1 presents the toxicity values used in estimating risks at Pond E.

F.6.5 Summary of 1995 Results

Table F-23 presents the 1995 cancer risk and noncancer hazard estimates for all the current on-site worker scenarios at Pond E.

Table F-23
Summary of the 1995 Risk Assessment Results
Pond E

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker					
(chronic)	Cancer Risk				
	'93 Results	4 E-8	1 E-7		
	'95 Ratios	--	--	NA	NA
	'95 New COPCs	1 E-12	5 E-12		
	Total	4 E-8	1 E-7		
(chronic & subchronic)					
	Hazard Index				
	'93 Results	0.02	0.2		
	'95 Ratios	--	--		
	'95 New COPCs	5 E-6	2 E-5		
	Total	0.02	0.2		

-- = No Value Available
NA = Not Applicable

The average and reasonable maximum cancer risks estimated for this scenario are both less than 1E-6. The estimated average and reasonable maximum noncancer hazard indices are less than 1.0 for both chronic and subchronic exposure cases.

Cancer Risks—The total cancer risk values in this scenario are based on the sum of the 1993 risk estimates and the new COCs found in the 1994 sludge samples. The pathway- and chemical-specific cancer risk estimates for the new COCs are listed in Appendix G, Table G-5.

Noncancer Hazards—The noncancer hazard indices for this scenario are based on the sum of the 1993 estimates and the results from the new COCs found in the sludge during the 1994 sampling period. The pathway- and chemical-specific noncancer hazard quotients estimated for the new COCs are listed in Appendix G, Table G-6.

F.6.6 Conclusions

As stated above, cancer risk and noncancer hazard estimates are less than 1E-06 and 1.0, respectively, for all exposure scenarios at Pond E.

F.7 Pond F

F.7.1 1993 Risk Assessment Results

The following three exposure scenarios were considered at Pond F in the 1993 risk assessment:

- Current On-site Worker
  - — Chronic
  - — Subchronic
- Future Beef Consumer—Agricultural (subchronic)
  - — Adult
  - — Child
- Future On-site Worker
  - — Subchronic

The results of the 1993 human health risk assessment are summarized in Table F-24 and indicated that cancer risk indices were less than 1E-6, and noncancer hazard indices were less than 1.0 for all exposure scenarios at Pond F.

Table F-24
Summary of the 1993 Risk Assessment Results
Pond F

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker	Cancer Risk	2 E-9	5 E-8	NA	NA
(chronic)	Hazard Index	0.0003	0.003		
(subchronic)	Hazard Index	0.0003	0.003	NA	NA
Future					
Beef Consumer					
Adult	Cancer Risk	2 E-8	4 E-7	NA	NA
	Hazard Index	0.0009	0.006		
Child	Cancer Risk	NA	NA	NA	NA
	Hazard Index	0.002	0.01		
Future					
On-site Worker					
(subchronic)	Hazard Index	0.02	0.1	NA	NA

NA = Not Applicable

F.7.2 Summary of Additional Sampling

Since human exposure to all media did not show that health risk estimates were above the 1E-6 or hazard index of 1.0, for any exposure scenario, additional sampling was not conducted at Pond F.

F.7.3 Summary of 1995 Results

Cancer and noncancer risk estimates are not recalculated in this addendum.

F.8 Pond G

F.8.1 1993 Risk Assessment Results

The following four exposure scenarios were considered at Pond G in the 1993 risk assessment:

- Current On-site Worker
  - — Chronic
  - — Subchronic
- Current/Future Trespasser
  - — Teenager, 12-15 years old
- Current/Future Recreational—Hunters (chronic and subchronic)
  - — Adult
  - — Child
- Future Beef Consumer—Agricultural
  - — Adult
  - — Child

The results of the 1993 human health risk assessment for Pond G are summarized in Table F-25. This table lists the COCs and exposure pathways that drove the overall risk estimates for each exposure scenario associated with the site in the 1993 assessment.

Cancer risk estimates were greater than 1 E-6 only for adults in the current/future recreational scenario. Noncancer hazard indices were greater than 1.0 in the current on-site worker and trespasser scenarios only.

Table F-25
Summary of the 1993 Risk Assessment Results
Pond G

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker	Cancer Risk	5 E-10	9 E-9	NA	NA
(chronic)	Hazard Index	0.05	***2***	***Organic Lead (100%)***	Dermal Contact - Surface water
(subchronic)	Hazard Index	0.05	***2***	***Organic Lead (100%)***	Dermal Contact - Surface water
Current/Future					
On-site Trespasser - Teenager (subchronic)	Hazard Index	***1***	***4***	***Organic Lead (100%)***	Ingestion & Dermal contact - Surface water
Current/Future					
Off-site Recreational (hunter)					
Adult	Cancer Risk	1 E-7	***5 E-6***	***Pentachlorobiphenyls (68%)***	Ingestion - Waterfowl
				Hexachlorobiphenyls (20%)	Ingestion - Waterfowl
				Tetrachlorobiphenyls (9%)	Ingestion - Waterfowl
				2,3,7,8-TCDD (3%)	Ingestion - Waterfowl
				Hexachlorodibenzofuran (3%)	Ingestion - Waterfowl
	Hazard Index	0.005	0.08	NA	NA
Child	Cancer Risk	NA	NA	NA	NA
	Hazard Index	0.02	0.2		
Future					
Beef Consumer					
Adult	Cancer Risk	4 E-10	1 E-8	NA	NA
	Hazard Index	0.00002	0.0002		
Child	Cancer Risk	NA	NA	NA	NA
	Hazard Index	0.00006	0.0006		

NA = Not Appicable

F.8.2 Summary of Additional Sampling

The 1993 risk assessment assumed that contact with contaminants at Pond G could occur through direct or indirect exposure to groundwater, surface water, soil, sludge, and/or waterfowl. Table F-26 presents the media that were sampled and evaluated for the 1993 risk assessment and those sampled during the 1994 investigation as well as an indication of whether or not COCs were detected from either investigation.

Table F-26
Media Sampled in Pond G

Exposure Media	1993 Risk Assessment		1994 Investigation	
	Media Sampled	COPCs Detected	Media Sampled	COPCs Detected
Groundwater	x	x		
Surface Water	x	x	x	
Soil	x	x		
Sludge	x	x	x	x
Waterfowl			x	x

Note: Waterfowl samples were collected in 1993, but were not available for use in the 1993 risk assessment. These data are presented along with data from the 1994 investigation since they are used to estimate risk estimates in the 1995 addendum.

For the 1995 addendum, only surface water and sludge were sampled during the 1994 investigation, and waterfowl was sampled in 1993 (after the 1993 risk assessment had been prepared). The rationale used in selecting which exposure media would be sampled during the 1994 investigation is presented in the following sections by medium.

Groundwater

The future beef consumer scenario was the only setting associated with exposure to groundwater in the 1993 risk assessment. In this scenario it was assumed that cattle could drink the groundwater, used as stock water, and ingest grasses irrigated by groundwater. Human exposure could then occur when the meat of these cattle was ingested. In reality the groundwater is too saline for these uses. Cancer risk and noncancer hazard estimates for this scenario were less than 1E-6 and 1.0, respectively, in 1993. In the 1995 addendum this exposure scenario was not evaluated for the following reasons:

1) Holloman AFB has established Base-wide management strategies that reduce further contamination of surface water and groundwater throughout the sewage lagoons and lakes;

2) The groundwater beneath Holloman AFB is unfit for human consumption and is too salty for watering livestock; therefore, it is unlikely that cattle would ingest the contaminants in groundwater; and

3) Livestock are not allowed to graze in this area of Holloman AFB.

Surface Water

Organic lead (a suspect analyte) was the only COC in surface water that produced noncancer risk estimates greater than 1.0 at Pond G in the 1993 risk assessment. Organic lead data was questionable since it was found at similar levels in equipment rinsate samples and was also found at concentrations greater than those for total lead throughout the sewage lagoons and lakes. Surface water samples were collected from Pond G in 1994 as part of a sampling plan designed to confirm the presence or absence of organic lead. This investigation showed that organic lead was not found at Pond G or at any other location in the sewage lagoons and lakes. Therefore, organic lead is no longer a COC at Pond G and the 1993 risk estimates associated with organic lead are not reported in the 1995 results presented in this addendum.

Soil

Soil samples were not collected for the 1995 addendum since cancer and noncancer health risk estimates were well below 1E-6 and 1.0, respectively, for all scenarios associated with exposure to soil at Pond G.

Sludge/Sediment

Additional sludge samples were collected from Pond G in 1994 and were analyzed for the presence of organochlorine pesticides and metals. From this analysis three new COCs were detected. They are presented in Table F-27 and include delta-BHC, dieldrin, and kepone.

Although all of these new COCs were detected at concentrations below the EPA Region III residential screening level for soil, they were retained as COCs. This was done because all are pesticides that have frequently been detected at Holloman AFB. Section F.8.4 discusses the use of these COCs in deriving risk estimates for new COCs in 1995. The exposure concentrations for these analytes are presented in Table F-27.

Waterfowl

In the 1993 risk assessment, the contaminant concentrations in waterfowl (duck tissue) used to estimate health risks in the recreational scenario were modeled in the absence of actual tissue samples. Although one duck was caught in 1993 (to obtain tissue samples), the analytical data were not available for use in the 1993 risk assessment. In this addendum, only the tissue samples from this one duck were used to estimate health risks from ingesting waterfowl in this scenario. This duck was estimated to be 9 months old when caught, and was therefore able to feed or reside at locations

Table F-27
Exposure Concentrations for the New COPCs
Pond G

Analyte	Sludge (mg/kg)		Waterfowl (a) (mg/kg)	
	Average	Reas.Max	Average	Reas.Max
2,4'-DDE	0	0	1.2 E-2	1.2 E-2
4,4'-DDD	0	0	1.4 E-2	1.4 E-2
4,4'-DDE	0	0	8.1 E-2	8.7 E-2
4,4'-DDT	0	0	2.8 E-4	2.8 E-4
Antimony	0	0	2.5 E-2	5.0 E-2
Arsenic	0	0	2.0 E-2	2.0 E-2
Cadmium (food)	0	0	5.0 E-2	5.0 E-2
Chromium	0	0	9.5 E-2	1.4 E-1
delta-BHC	3.2 E-4	4.0 E-4	0	0
Dieldrin	3.2 E-4	3.7 E-4	1.2 E-3	1.2 E-3
Endrin	0	0	1.2 E-3	1.2 E-3
gamma-Chlordane	0	0	3.6 E-3	3.8 E-3
Heptachlor	0	0	1.7 E-4	2.0 E-4
Hexachlorobenzene	0	0	6.3 E-4	6.5 E-4
Kepone	2.5 E-3	3.5 E-3	0	0
Magnesium	0	0	1.1 E+3	1.2 E+3
Mercury	0	0	6.5 E-2	6.7 E-2
Nickel	0	0	5.5 E-2	7.0 E-2
Oxychlordane	0	0	1.8 E-2	1.9 E-2
PCBs (total)	0	0	5.7 E-3	6.0 E-3
Selenium	0	0	2.8 E+0	2.9 E+0
Silver	0	0	2.0 E-1	2.1 E-1
Thallium	0	0	5.0 E-2	8.0 E-2
trans-Nonachlor	0	0	4.1 E-4	4.4 E-4

(a) Exposure concentrations in waterfowl are identical at Pond G, the Ditch, and the Lakes.

other than the sewage lagoons and lakes. The COCs detected in the breast meat of this duck and their exposure concentrations are provided in Table F-27.

F.8.3 1995 Risk Ratios

Analytes that have a risk ratio greater than 1.0, or that contributed at least 1% to the overall risk value in the 1993 risk assessment (risk drivers), were used to compute new risk values. On the basis of either of these two selection criteria, the COCs chosen for further evaluation at Pond G are shown below.

Risk Ratios > 1.0

Arsenic was the only COC in sludge that had a risk ratio greater than 1.0.

Risk Drivers

There were no risk drivers in the sludge data set for Pond G since cancer risk estimates were less than 1E-6 and noncancer hazard estimates were less than 1.0 for this medium.

Table F-28 lists the risk ratios and updated risk estimates for arsenic based on its risk ratio.

F.8.4 New COCs in 1995

Cancer and noncancer risk estimates were recalculated for the new COCs detected in sludge and tissue samples from the duck. The exposure concentrations for these COCs are listed in Table F-27, and Table F-1 presents their respective toxicity values.

The exposure scenarios and pathways evaluated using the new COCs are the following:

- Current On-site Worker
  — Dermal contact with sludge;

- Current/Future Trespasser
  — Dermal contact with sludge; and

- Current/Future Recreational (Hunter)
  — Ingestion of waterfowl (duck).

F.8.5 Summary of 1995 Results

Table F-29 presents the 1995 cancer risk and noncancer hazard estimates for all three exposure scenarios at Pond G. A discussion of the risk estimates for each of these scenarios is presented below.

Table F-28
1995 Risk Assessment Results for the COPCs in Sludge
Based on Their Risk Ratios
Pond G

Exposure Scenario	Primary Exposure Pathway	1993 Risk Assessment Results		1995 Risk Assessment Results				
							Relative Change In 1993 Risk Value	
		Noncancer Hazard	Cancer Risk	Risk Ratio	Adjusted Noncancer Hazard	Adjusted Cancer Risk	Noncancer Hazard	Cancer Risk
Current On-site Worker (chronic & subchronic)	Dermal Contact							
Average								
Arsenic		2.8 E-7	--	1.1	3.0 E-7	--	2.8 E-8	--
Total		**3 E-7**			**3 E-7**		**3 E-8**	
Reasonable Maximum	Dermal Contact							
Arsenic		3.3 E-7	--	1.3	4.3 E-7	--	9.9 E-8	--
Total		**3 E-7**			**4 E-7**		**1 E-7**	

-- = No Value Available

Relative change = (1995 adjusted risk value) - (1993 risk value).

Table F-29
Summary of the 1995 Risk Assessment Results
Pond G

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker					
(chronic)	**Cancer Risk**				
	'93 Results	5 E-10	9 E-9		
	'95 Ratios (a)	–	–	NA	NA
	'95 New COPCs	6 E-12	2 E-11		
	Total	5 E-10	9 E-9		
(chronic & subchronic)					
	Hazard Index				
	'93 Results	2 E-5	6 E-5		
	'95 Ratios (a)	3 E-8	1 E-7	NA	NA
	'95 New COPCs	3 E-7	4 E-7		
	Total	0.00002	0.00006		
Current/Future					
On-site Trespasser - Teenager					
(subchronic)	**Hazard Index**				
	'93 Results (b)	–	–	NA	NA
	'95 Ratios (b)	–	–		
	'95 New COPCs	9 E-8	2 E-7		
	Total	9 E-8	2 E-7		

Table F-29
(Continued)

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current/Future					
Off-site Recreational - Adult					
(chronic)	**Cancer Risk**				
	'93 Results (c)	–	–		
	'95 Ratios (c)	–	–		
	'95 New COPCs	3 E-7	6 E-6		
	Total	3 E-7	***6 E-6***	***4,4'-DDD (3%)***	Ingestion - Waterfowl
				4,4'-DDE (23%)	Ingestion - Waterfowl
				Dieldrin (15%)	Ingestion - Waterfowl
				gamma-Chlordane (4%)	Ingestion - Waterfowl
				Oxychlordane (18%)	Ingestion - Waterfowl
				PCBs (total) (36%)	Ingestion - Waterfowl
	Hazard Index				
	'93 Results (c)	–	–		
	'95 Ratios (c)	–	–	NA	NA
	'95 New COPCs	0.04	0.3		
	Total	0.4	0.3		
(subchronic)	**Cancer Risk**	NA	NA		
	Hazard Index				
	'93 Results (b)	–	–		
	'95 Ratios (a)	2 E-6	7 E-6		
	'95 New COPCs	0..03	0.2		
	Total	0.03	0.2		

Table F-29
(Continued)

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current/Future					
Off-site Recreational - Child					
(chronic)	**Cancer Risk**	NA	NA	NA	NA
	Hazard Index				
	'93 Results (c)	–	–		
	'95 Ratios (c)	–	–	NA	NA
	'95 New COPCs	0.1	0.9		
	Total	0.1	0.9		
(subchronic)	**Cancer Risk**	NA	NA	NA	NA
	Hazard Index				
	'93 Results (b)	–	–		
	'95 Ratios (a)	4 E-6	2 E-5	NA	NA
	'95 New COPCs	0.08	0.5		
	Total	0.08	0.5		

– = No Value Available
NA = Not Applicable

(a) Values shown are the "relative change in the 1993 risks" which are based on the 1995 risk ratios. Refer to Table F-28 for a complete listing of these values.

(b) Risk in this scenario were from exposure to organic lead, which is no longer a COPC at Pond G.

(c) Only risks from the new COPCs are presented since duck tissue samples replaced the modeled data used in 1993.

(d) These COPCs are not shown individually since their hazard quotients only total 0.4.

(e) These COPCs are not shown individually since their hazard quotients only total 0.1.

Current On-site Worker

The average and reasonable maximum cancer risks estimated for this scenario are both less than 1E-6. The estimated average and reasonable maximum noncancer hazard indices are less than 1.0 for both chronic and subchronic exposure cases.

The total cancer risk values in this scenario are based on the sum of the 1993 risk estimates and the new COCs found in the 1994 sludge samples. The pathway- and chemical-specific cancer risk estimates for the new COCs are listed in Appendix G, Table G-7.

The noncancer hazard indices for this scenario are based on the sum of the 1993 estimates, the relative change in the 1993 estimates based on the 1995 risk ratios, and the results from the new COCs found in the sludge during the 1994 sampling period. The pathway- and chemical-specific noncancer hazard quotients estimated for the new COCs are listed in Appendix G, Table G-8.

Current/Future Trespasser

As a subchronic exposure scenario, only noncancer hazards were estimated for trespassers.

Both the average and reasonable maximum noncancer hazard index are less than 1.0 in this scenario.

The estimated noncancer hazard indices for this scenario are based entirely on the new COCs found in the sludge during the 1994 sampling period. The pathway- and chemical-specific noncancer hazard quotients estimated for the new COCs are presented in Appendix G, Table G-9.

Current/Future Recreational (hunter)

In this scenario, cancer and noncancer risk estimates for both children and adults are based entirely on the ingestion of the waterfowl. In selecting the COCs to estimate these risks, the contaminants detected in the breast meat of one duck was chosen over the modeled data used in the 1993 risk assessment.

Although this duck was caught at Pond G, it was the only duck taken from the sewage lagoons and lakes to assess health risks in the current/future recreational (hunter) scenario. Because this scenario is also evaluated at the ditch, Lake Holloman, and Lake Stinky, health risks at these sites were estimated using the data from the tissues of the duck caught at Pond G.

Since the same data, and same exposure assumptions were applied at Pond G, the ditch, and the lakes, the resultant cancer and noncancer risk estimates are identical at each of these sites.

Adult—The average cancer risk estimated for this scenario is less than 1E-6 and the reasonable maximum cancer risk estimate is 6E-6. The estimated average and reasonable maximum noncancer hazard indices are less than 1.0 for both the chronic and subchronic exposure cases.

Cancer risk estimates are based entirely on the new COCs found in the breast tissue of one duck collected during the investigation. Of the COCs detected in these tissue samples, the following chemicals were the primary risk drivers:

- 4,4'-DDD
- 4,4'-DDE
- Dieldrin
- gamma-Chlordane
- Oxychlordane
- PCBs (total)

The pathway- and chemical-specific cancer risk estimates for the new COCs found in the duck's tissue are listed in Appendix G, Table G-10.

Likewise, noncancer hazards were estimated using only the duck tissue sample data. The pathway- and chemical-specific noncancer hazard quotients estimated for the new COCs found in the duck tissue are listed in Appendix G, Table G-11 and G-12 for the chronic and subchronic exposure cases, respectively.

Child—Cancer risks were not estimated for children in this addendum. For both chronic and subchronic exposure, the estimated average and reasonable maximum noncancer hazard index is less than 1. Noncancer hazard indices were estimated using only the duck's tissue sample data. The pathway- and chemical-specific noncancer hazard quotients estimated for the new COCs found in duck tissue are listed in Appendix G, Table G-13 and G-14 for the chronic and subchronic exposure cases, respectively.

F.8.6 Conclusions

Cancer risk estimates are greater than 1E-6 only for adults in the recreational exposure scenario. Noncancer hazard indices are less than 1.0 in all scenarios at Pond G.

The cancer risks estimated for the adult recreational scenario are based entirely on the ingestion of waterfowl. In this addendum, exposure to the COCs in waterfowl, and resultant risk estimates, are identical at Pond G, the ditch, and Lakes Holloman and Stinky since ducks are assumed to feed at one or more of these sites. A complete discussion of the risks from ingesting waterfowl is presented in Section 4 of the risk assessment addendum report.

F.9 The Ditch

F.9.1 1993 Risk Assessment Results

The following exposure scenarios were considered at the ditch in the 1993 risk assessment:

- Current On-site Worker
  - — Chronic
  - — Subchronic

- Current/Future Recreational—Hunters (chronic and subchronic)
  - — Adult
  - — Child

The results of the 1993 human health risk assessment for the ditch are summarized in Table F-30. This table lists the COCs and exposure pathways that drove the overall risk estimates for each exposure scenario associated with the site in the 1993 assessment.

Cancer risk estimates were greater than 1E-6 only for adults in the current/future recreational scenario. Noncancer hazard indices were below 1.0 in all scenarios.

F.9.2 Summary of Additional Sampling

The 1993 risk assessment assumed that contact with contaminants at the ditch could occur through direct or indirect exposure to surface water, soil, and/or waterfowl. Table F-31 presents the media that were sampled and evaluated for the 1993 risk assessment and those sampled during the 1994 investigation including an indication of whether or not COCs were detected from either investigation.

For the 1995 addendum, soil and surface water were sampled during the 1994 investigation and waterfowl was sampled in 1993 (after the 1993 risk assessment had been prepared). The rationale used in selecting which exposure media would be sampled during the 1994 investigation is presented in the following sections by medium.

Surface Water

Because exposure to surface water did not contribute significantly to overall cancer and noncancer risk estimates from the ditch, further analysis was not performed during the 1994 investigation.

Table F-30
Summary of the 1993 Risk Assessment Results
Ditch

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker	Cancer Risk	6 E-8	2 E-7	NA	NA
(chronic)	Hazard Index	0.004	0.004		
(subchronic)	Hazard Index	0.004	0.004	NA	NA
Current/Future					
Off-site Recreational (hunter)					
Adult	Cancer Risk	2 E-7	***2 E-6***	* ***Heptachlor epoxide (87%)***	Dermal contact - Soil
				Hexachlorobiphenyls (7%)	Ingestion - Waterfowl
				Tetrachlorobiphenyls (3%)	Ingestion - Waterfowl
				2,3,7,8-TCDD (1%)	Ingestion - Waterfowl
				Hexachlorodibenzofuran (1%)	Ingestion - Waterfowl
	Hazard Index	0.01	0.07	NA	NA
Current/Future					
Off-site Recreational (hunter)					
Child	Cancer Risk	NA	NA	NA	NA
	Hazard Index	0.04	0.2		

* These analytes have not been detected (ND) at the sewage lagoon system during subsequent investigations and are no longer COPCs at these sites. Therefore, these analytes do not contribute to overall risk estimates at the sewage lagoon system.

NA = Not Applicable

Table F-31
Media Sampled in the Ditch

Exposure Media	1993 Risk Assessment		1994 Investigation	
	Media Sampled	COPCs Detected	Media Sampled	COPCs Detected
Surface Water	x	x	x	
Soil	x	x	x	x
Waterfowl			x	x

Note: Waterfowl samples were collected in 1993, but were not available for use in the 1993 risk assessment. These data are presented along with data from the 1994 investigation since they are used to estimate risks in the 1995 addendum.

Soil

Additional soil samples were collected in 1994 and analyzed for the presence of organochlorine pesticides and metals. As stated in Section 1.1.3 of the risk assessment addendum report, heptachlor epoxide (a suspect analyte) was not detected at the sewage lagoons and lakes in the 1994 investigation and was eliminated as a COC in both the 1993 risk assessment and the 1995 addendum. Therefore, heptachlor epoxide does not contribute to the overall cancer risk estimates in the future recreational scenario at the ditch. No other COCs in soil were risk drivers in the 1993 risk assessment.

Four new COCs were detected in soils from the ditch during the 1994 investigation. They are dieldrin, endosulfan sulfate, endrin, and methoxychlor. Although all four of these new COCs were detected at concentrations below the EPA Region III residential screening level for soil, they were retained as COCs. This was done because pesticides have frequently been detected at Holloman AFB. Section F.9.4 discusses the use of these COCs in deriving risk estimates for new COCs in 1995.

Waterfowl

In the 1993 risk assessment, the contaminant concentrations in waterfowl (duck tissue) used to estimate health risks in the recreational scenario were modeled in the absence of actual tissue samples. Although one duck was caught in 1993 (to obtain tissue samples), the analytical data were not available for use in the 1993 risk assessment. In this addendum, only the tissue samples from this duck were used to estimate health risks from ingesting waterfowl in this scenario. This duck was estimated to be 9 months old when caught, and was therefore able to feed or reside at locations other than the sewage lagoons and lakes. The COCs detected in the breast meat of this duck and their exposure concentrations are provided in Table F-32.

Table F-32
Exposure Concentrations for the New COPCs
Ditch

Analyte	Soil (mg/kg)		Waterfowl (a) (mg/kg)	
	Average	Reas.Max	Average	Reas.Max
2,4'-DDE	0	0	1.2 E-2	1.2 E-2
4,4'-DDD	0	0	1.4 E-2	1.4 E-2
4,4'-DDE	0	0	8.1 E-2	8.7 E-2
4,4'-DDT	0	0	2.8 E-4	2.8 E-4
Antimony	0	0	2.5 E-2	5.0 E-2
Arsenic	0	0	2.0 E-2	2.0 E-2
Cadmium (food)	0	0	5.0 E-2	5.0 E-2
Chromium	0	0	9.5 E-2	1.4 E-1
Dieldrin	5.5 E-4	8.4 E-4	1.2 E-3	1.2 E-3
Endosulfan sulfate	1.4 E-5	2.5 E-5	0	0
Endrin	9.1 E-4	1.7 E-3	1.2 E-3	1.2 E-3
gamma-Chlordane	0	0	3.6 E-3	3.8 E-3
Heptachlor	0	0	1.7 E-4	2.0 E-4
Hexachlorobenzene	0	0	6.3 E-4	6.5 E-4
Magnesium	0	0	1.1 E+3	1.2 E+3
Mercury	0	0	6.5 E-2	6.7 E-2
Methoxychlor	1.3 E-4	2.1 E-4	0	0
Nickel	0	0	5.5 E-2	7.0 E-2
Oxychlordane	0	0	1.8 E-2	1.9 E-2
PCBs (total)	0	0	5.7 E-3	6.0 E-3
Selenium	0	0	2.8 E+0	2.9 E+0
Silver	0	0	2.0 E-1	2.1 E-1
Thallium	0	0	5.0 E-2	8.0 E-2
trans-Nonachlor	0	0	4.1 E-4	4.4 E-4

(a) Exposure concentrations in waterfowl are identical a Pond G, the Ditch, and the Lakes.

F.9.3 1995 Risk Ratios

Analytes that have a risk ratio greater than 1.0, or that contributed at least 1% to the overall risk value in the 1993 risk assessment (risk drivers), were used to compute new risk values. On the basis of either of these two selection criteria, the COCs chosen for further evaluation at the ditch are shown below.

Risk Ratios > 1.0

Aldrin and chlordane were the only COCs in soil that had a risk ratio greater than 1.0.

Risk Drivers

There were no risk drivers in the soil data set for the since cancer risk estimates were less than 1E-6 and noncancer hazard indices were less than 1.0 for this medium.

Table F-33 presents the risk ratios and updated risk estimates for aldrin and chlordane based on their risk ratios.

F.9.4 New COCs in 1995

Cancer and noncancer risk estimates were recalculated for the new COCs detected in soil and duck tissue samples. The exposure concentrations for these COCs are listed in Table F-32, and Table F-1 presents their respective toxicity values. The exposure scenarios and pathways evaluated using the new COCs are the following:

- Current On-site Worker
  - — Dermal contact with soil
- Current/Future Recreational (Hunter)
  - — Dermal contact with soil
  - — Ingestion of waterfowl (duck)

F.9.5 Summary of 1995 Results

Table F-34 presents the 1995 cancer risk and noncancer hazard estimates for the exposure scenarios at the ditch. A discussion of the risk estimates for each of these scenarios is presented below.

Current On-site Worker

The average and reasonable maximum cancer risks estimated for this scenario are both less than 1E-6. The estimated average and reasonable maximum noncancer hazard indices are less than 1.0 for both chronic and subchronic exposure cases.

Table F-33
1995 Risk Assessment Results for the COCs in Soil
Based on Their Risk Ratios
Ditch

Exposure Scenario	Primary Exposure Pathway	1993 Risk Assessment Results		1995 Risk Assessment Results				
							Relative Change In 1993 Risk Value	
		Noncancer Hazard	Cancer Risk	Risk Ratio	Adjusted Noncancer Hazard	Adjusted Cancer Risk	Noncancer Hazard	Cancer Risk
Current On-site Worker (chronic & subchronic)	Dermal Contact							
Average								
Aldrin		8.3 E-8	1.4 E-11	1.2	1.0 E-7	1.4 E-18	1.7 E-8	-1.4 E-11
Chlordane		5.7 E-7	5.7 E-12	5.4	3.1 E-6	3.1 E-11	2.5 E-6	2.5 E-11
Totals		**6 E-7**	**2 E-11**		**3 E-6**	**3 E-11**	**3 E-6**	**1 E-11**
Reasonable Maximum								
Aldrin		9.3 E-8	4.0 E-11	1.3	1.2 E-7	4.8 E-18	2.8 E-8	-4.0 E-11
Chlordane		1.3 E-6	3.7 E-11	7.5	9.8 E-6	2.8 E-10	8.5 E-6	2.4 E-10
Totals		**1 E-6**	**8 E-11**		**1 E-5**	**3 E-10**	**8 E-6**	**2 E-10**

Table F-33
(Continued)

Exposure Scenario	Primary Exposure Pathway	1993 Risk Assessment Results		1995 Risk Assessment Results				
		Noncancer Hazard	Cancer Risk	Risk Ratio	Adjusted Noncancer Hazard	Adjusted Cancer Risk	Relative Change In 1993 Risk Value: Noncancer Hazard	Relative Change In 1993 Risk Value: Cancer Risk
Future Recreational - Adult	Dermal Contact							
Average								
Aldrin		2.6 E-7	4.0 E-11	1.2	3.1 E-7	1.2 E-17	5.2 E-8	-4.0 E-11
Chlordane		1.8 E-6	2.0 E-11	5.4	9.7 E-6	1.1 E-10	7.9 E-6	8.8 E-11
Totals		**2 E-6**	**6 E-11**		**1 E-5**	**1 E-10**	**8 E-6**	**5 E-11**
Reasonable Maximum								
Aldrin		5.7 E-7	3.0 E-10	1.3	7.4 E-7	2.2 E-16	1.7 E-7	-3.0 E-10
Chlordane		8.2 E-6	3.0 E-10	7.5	6.2 E-5	2.3 E-9	5.3 E-5	2.0 E-9
Totals		**9 E-6**	**6 E-10**		**6 E-5**	**2 E-9**	**5 E-5**	**2 E-9**
Future Recreational - Child	Dermal Contact							
Average								
Aldrin		6.8 E-7	--	1.2	8.2 E-7	--	1.4 E-7	--
Chlordane		4.6 E-6	--	5.4	2.5 E-5	--	2.0 E-5	--
Totals		**5 E-6**			**3 E-5**		**2 E-5**	
Reasonable Maximum								
Aldrin		1.5 E-6	--	1.3	2.0 E-6	--	4.5 E-7	--
Chlordane		2.2 E-5	--	7.5	1.7 E-4	--	1.4 E-4	--
Totals		**2 E-5**			**2 E-4**		**1 E-4**	

Relative change = (1995 adjusted risk value) - (1993 risk value).

-- = No Value Available

Table F-34
Summary of the 1995 Risk Assessment Results
The Ditch

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current					
On-site Worker					
(chronic)	**Cancer Risk**				
	'93 Results	6 E-8	2 E-7		
	'95 Ratios (a)	1 E-11	2 E-10		
	'95 New COPCs	5 E-12	2 E-11		
	Total	6 E-8	2 E-7		
(chronic & subchronic)					
	Hazard Index				
	'93 Results	0.004	0.004		
	'95 Ratios (a)	3 E-6	8 E-6		
	'95 New COPCs	5 E-8	7 E-8		
	Total	0.004	0.004		
Current/Future					
Off-site Recreational - Adult					
(chronic)	**Cancer Risk**				
	'93 Results (b)	–	–		
	'95 Ratios (a)	5 E-11	2 E-9		
	'95 New COPCs	3 E-7	6 E-6		
	Total	3 E-7	***6 E-6***	***4,4'-DDD (3%)***	Ingestion - Waterfowl
				4,4'-DDE (23%)	Ingestion - Waterfowl
				Dieldrin (15%)	Ingestion - Waterfowl
				gamma-Chlordane (4%)	Ingestion - Waterfowl
				Oxychlordane (18%)	Ingestion - Waterfowl
				PCBs (total) (36%)	Ingestion - Waterfowl
	Hazard Index				
	'93 Results (b)	–	–		
	'95 Ratios (a)	8 E-6	5 E-5	NA	NA
	'95 New COPCs	0.04	0.3		
	Total	0.04	0.3		
(subchronic)	**Cancer Risk**	NA	NA	NA	NA
	Hazard Index				
	'93 Results (b)	–	–		
	'95 Ratios (a)	2 E-6	7 E-6	NA	NA
	'95 New COPCs	0.03	0.2		
	Total	0.03	0.2		

Table F-34
(Continued)

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current/Future					
Off-site Recreational - Child					
(chronic)	**Cancer Risk**	NA	NA	NA	NA
	Hazard Index				
	'93 Results (b)	–	–		
	'95 Ratios (a)	2 E-5	1 E-4	NA	NA
	'95 New COPCs	0.1	0.9		
	Total	0.1	0.9		
(subchronic)	**Cancer Risk**	NA	NA	NA	NA
	Hazard Index				
	'93 Results (b)	–	–		
	'95 Ratios (a)	4 E-6	2 E-5	NA	NA
	'95 New COPCs	0.08	0.5		
	Total	0.08	0.5		

– = No Value Available
NA = Not Applicable

(a) Values shown are the "relative change in the 1993 risks" which are based on the 1995 risk ratios.

(b) These estimates were based primarily on the ingestion of waterfowl. Only risks from the new COPCs are used in the 1995 estimates since duck tissue samples replaced the modeled data used in the 1993 assessment.

(c) These COPCs are not shown individually since their hazard quotients only total 0.4.

(d) These COPCs are not shown individually since their hazard quotients only total 0.1.

The total cancer risk values in this scenario are based on the sum of the 1993 risk estimates, the relative change in the 1993 estimates (based on the 1995 risk ratios), and the new COCs found in the 1994 sludge samples. The pathway- and chemical-specific cancer risk estimates for the new COCs are listed in Appendix G, Table G-15.

The noncancer hazard indices for this scenario are based on the sum of the 1993 estimates, the relative change in the 1993 estimates (based on the 1995 risk ratios), and the results from the new COCs found in the sludge during the 1994 sampling period. The pathway- and chemical-specific noncancer hazard quotients estimated for the new COCs are listed in Appendix G, Table G-16.

Current/Future Recreational (hunter)

In this scenario, cancer and noncancer risk estimates for both children and adults are based entirely on the ingestion of the waterfowl. Since these risk estimates are identical to those predicted at Pond G, refer to Section F.8.5 for a discussion of the health risks associated with this exposure.

Although exposure to the new COCs in soil were also evaluated, this exposure pathway contributed less than 0.1% to the total risk estimates for both children and adults.

The pathway- and chemical-specific cancer and noncancer risk summaries for the new COCs are listed in Appendix G, Tables G-17 through G-19, and G-20 and G-21 for adults and children, respectively.

F.9.6 Conclusions

Cancer risk estimates are greater than 1E-6 only for adults in the recreational exposure scenario. Noncancer hazard indices are less than 1.0 in all scenarios at the ditch.

The cancer risks estimated for the adult recreational scenario are based entirely on the ingestion of waterfowl. In this addendum, exposure to the COCs in waterfowl, and resultant risk estimates, are identical at Pond G, the ditch, and Lakes Holloman and Stinky. A complete discussion of the risks from ingesting waterfowl is presented in Section 4 of the risk assessment addendum report.

F.10 Lake Holloman

F.10.1 1993 Risk Assessment Results

The following two exposure scenarios were considered at Lake Holloman:

- Current/Future Recreational—Hunters (chronic and subchronic)
  - — Adult
  - — Child

- Future Beef Consumer—Agricultural
  - — Adult
  - — Child

The results of the 1993 human health risk assessment for Lake Holloman are summarized in Table F-35. The table lists the COCs and exposure pathways that drove the overall risk estimates for each exposure scenario associated with the site in the 1993 assessment.

Cancer risk estimates were greater than 1E-6 only for adults in the current/future recreational scenario. Noncancer hazard indices were greater than 1.0 in both scenarios.

F.10.2 Summary of Additional Sampling

The 1993 risk assessment assumed that contact with contaminants at Lake Holloman could occur through direct or indirect exposure to groundwater, surface water, soil, sludge, and/or waterfowl. Table F-36 presents the media that were sampled and evaluated for the 1993 risk assessment and those sampled during the 1994 investigation including an indication of whether or not COCs were detected from either investigation.

For the 1995 addendum, sludge and surface water were sampled during the 1994 investigation and waterfowl was sampled in 1993 (after the 1993 risk assessment had been prepared). The rationale used in selecting which exposure media would be sampled during the 1994 investigation is presented in the following sections by media.

Groundwater

The future beef consumer scenario was the only setting associated with exposure to groundwater in the risk assessment addendum. In this scenario it was assumed that cattle could come in contact with contaminants in groundwater by ingesting grasses irrigated by groundwater. Human exposure could then occur when the meat of these cattle was ingested. In reality the groundwater is too saline for these uses. Cancer risk and noncancer hazard estimates for this scenario, for groundwater pathways, were below 1E-6 and 1.0 respectively in 1993. In the 1995 addendum this exposure scenario was not evaluated for the following reasons:

1) Holloman AFB has established Base-wide management strategies that reduce further contamination of surface water and groundwater throughout the sewage lagoons and lakes;

2) The groundwater beneath Holloman AFB is unfit for human consumption and is too saline for watering livestock; therefore, it is unlikely that cattle would ingest the contaminants in groundwater; and

Table F-35
Summary of the 1993 Risk Assessment Results
Lake Holloman

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current/Future - Adult					
Off-site Recreational					
(chronic)	Cancer Risk	4 E-7	*1 E-5*	***Arsenic (45%)***	Inhalation - Dust
				Pentachlorobiphenyls (25%)	Ingestion - Waterfowl
				* ***Heptachlor epoxide (19%)***	Inhalation - Dust
				Hexachlorobiphenyls (7%)	Ingestion - Waterfowl
				Tetrachlorobiphenyls (3%)	Ingestion - Waterfowl
				Hexachlorodibenzofuran (1%)	Ingestion - Waterfowl
				2,3,7,8-TCDD (1%)	Ingestion - Waterfowl
	Hazard Index	*2*	*7*	***Organic Lead (95%)***	Ingestion & Dermal contact -
(subchronic)	Cancer Risk	NA	NA		
	Hazard Index	*2*	*7*	***Organic Lead (95%)***	Ingestion & Dermal contact - Surface water
Current/Future - Child					
Offsite Recreational					
(chronic)	Cancer Risk	NA	NA		
	Hazard Index	*8*	*23*	***Organic Lead (98%)***	Ingestion & Dermal contact - Surface water
(subchronic)	Cancer Risk	NA	NA		
	Hazard Index	*8*	*22*	***Organic Lead (98%)***	Ingestion & Dermal contact - Surface water
Future					
Beef Consumer					
Adult	Cancer Risk	3 E-9	7 E-8		
	Hazard Index	*20*	*123*	***Organic Lead (100%)***	Ingestion - Beef
Child	Cancer Risk	NA	NA		
	Hazard Index	*46*	*287*	***Organic Lead (100%)***	Ingestion - Beef

* These analytes have not been detected (ND) at the sewage lagoon system during subsequent ivestigations and are no longer COPCs at these sites. Therefore, these analytes do not contribute to overal risk estimates at the sewage lagoon system.

NA = Not Applicable

Table F-36
Media Sampled in Lake Holloman

Exposure Media	1993 Risk Assessment		1994 Investigation	
	Media Sampled	COPCs Detected	Media Sampled	COPCs Detected
Groundwater	x	x		
Surface Water	x	x	x	
Soil	x	x		
Sludge	x	x	x	x
Waterfowl			x	x

Note: Waterfowl samples were collected in 1993, but were not available for use in the 1993 risk assessment. These data are presented along with data from the 1994 investigation since they are used to estimate risks in the 1995 addendum.

3) Livestock grazing is not allowed in this area at Holloman AFB.

Surface Water

Organic lead (a suspect analyte) was the only COC in surface water that produced noncancer risk estimates greater than 1.0 at Lake Holloman in the 1993 risk assessment. Organic lead was questionable since it was found at similar levels in equipment rinsate samples and was also found at concentrations greater than those for total lead throughout the sewage lagoons and lakes. Surface water samples were collected from Lake Holloman in 1994 as part of a sampling plan designed to confirm the presence or absence of organic lead. This investigation showed that organic lead was not found at Lake Holloman. Therefore, organic lead is no longer a COC at Lake Holloman and the 1993 risk estimates associated with organic lead are not reported in the 1995 results presented in this addendum.

No other COCs in surface water were risk drivers in the 1993 risk assessment.

Soil

Additional soil samples were not collected in 1994 at Lake Holloman for this addendum. In the 1993 risk assessment, heptachlor epoxide (a suspect analyte) was a cancer risk driver in the adult recreational scenario. However, as stated in Section 1.1.3 of the risk assessment addendum report, heptachlor epoxide was not detected in any medium sampled in the sewage lagoons and lakes during the 1994 investigation and has been eliminated as a COC in both the 1993 risk assessment and the 1995 addendum. Therefore, heptachlor epoxide does not contribute to the overall cancer risk

estimates in the future recreational scenario at Lake Holloman. No other COCs in soil were risk drivers in the 1993 risk assessment.

Sludge

Additional sludge samples were collected from Lake Holloman in 1994 and were analyzed for the presence of organochlorine pesticides and metals. The three new COCs detected from these samples are beryllium, kepone, and thallium.

Although kepone was detected at concentrations below the EPA Region III soil screening level, it was retained as a COC since it has been detected previously at Holloman AFB. The exposure concentrations for these new COCs are presented in Table F-37, and Section F.10.4 discusses the use of these COCs in deriving risk estimates for new COCs in 1995.

Waterfowl

In the 1993 risk assessment, the contaminant concentrations in waterfowl (duck tissue) used to estimate health risks in the recreational scenario were modeled in the absence of actual tissue samples. Although one duck was caught in 1993 (to obtain tissue samples), the analytical data were not available for use in the 1993 risk assessment. In this addendum, only the tissue samples from this duck were used to estimate health risks from ingesting waterfowl in this scenario. This duck was estimated to be 9 months old when caught, and was therefore able to feed or reside at locations other than the sewage lagoons and lakes. The COCs detected in the breast meat of this duck and their exposure concentrations are provided in Table F-37.

F.10.3 1995 Risk Ratios

Analytes that have a risk ratio greater than 1.0, or that contributed at least 1% to the overall risk value in the 1993 risk assessment (risk drivers), were used to compute new risk values. On the basis of either of these two selection criteria, the COCs chosen for further evaluation at Lake Holloman are shown below.

Risk Ratios > 1.0

Chlordane was the only COC in sludge that had a risk ratio greater than 1.0.

Risk Drivers

There were no risk drivers in the sludge since cancer risk estimates were less than 1E-6 and noncancer hazard estimates were less than 1.0 for this medium.

Table F-38 presents the risk ratios and updated risk estimates for chlordane based on its risk ratios.

Table F-37
Exposure Concentrations for the New COPCs
Lake Holloman

Analyte	Sludge (mg/kg)		Waterfowl (a) (mg/kg)	
	Average	Reas.Max	Average	Reas.Max
2,4'DDE	0	0	1.2 E-2	1.2 E-2
4,4'-DDD	0	0	1.4 E-2	1.4 E-2
4,4'-DDE	0	0	8.1 E-2	8.7 E-2
4,4'-DDT	0	0	2.8 E-4	2.8 E-4
Antimony	0	0	2.5 E-2	5.0 E-2
Arsenic	0	0	2.0 E-2	2.0 E-2
Barium	0	0	0	0
Beryllium	4.4 E-1	6.7 E-1	0	0
Cadmium (food)	0	0	5.0 E-2	5.0 E-2
Chromium	0	0	9.5 E-2	1.4 E-1
Dieldrin	0	0	1.2 E-3	1.2 E-3
Endrin	0	0	1.2 E-3	1.2 E-3
gamma-Chlordane	0	0	3.6 E-3	3.8 E-3
Heptachlor	0	0	1.7 E-4	2.0 E-4
Hexachlorobenzene	0	0	6.3 E-4	6.5 E-4
Kepone	8.7 E-3	1.1 E-2	0	0
Magnesium	0	0	1.1 E+3	1.2 E+3
Mercury	0	0	6.5 E-2	6.7 E-2
Nickel	0	0	5.5 E-2	7.0 E-2
Oxychlordane	0	0	1.8 E-2	1.9 E-2
PCBs (total)	0	0	5.7 E-3	6.0 E-3
Selenium	0	0	2.8 E+0	2.9 E+0
Silver	0	0	2.0 E-1	2.1 E-1
Thallium	8.1 E-1	1.1 E+0	5.0 E-2	8.0 E-2
trans-Nonachlor	0	0	4.1 E-4	4.4 E-4

(a) Exposure concentrations in waterfowl are identical at Pond G, the Ditch, and the Lakes.

Table F-38
1995 Risk Assessment Results for the COCs in Sludge
Based on Their Risk Ratios
Lake Holloman

Exposure Scenario	Primary Exposure Pathway	1993 Risk Assessment Results		1995 Risk Assessment Results				
							Relative Change In 1993 Risk Value	
		Noncancer Hazard	Cancer Risk	Risk Ratio	Adjusted Noncancer Hazard	Adjusted Cancer Risk	Noncancer Hazard	Cancer Risk
Future Recreational - Adult								
(chronic)	Dermal Contact							
Average								
Chlordane		7.6 E-6	7.6 E-11	1.2	9.1 E-6	9.1 E-11	1.5 E-6	1.5 E-11
Totals		**8 E-6**	**8 E-11**		**9 E-6**	**9 E-11**	**2 E-6**	**2 E-11**
Reasonable Maximum								
Chlordane		3.3 E-5	1.1 E-9	1.2	4.0 E-5	1.3 E-9	6.6 E-6	2.2 E-10
Totals		**3 E-5**	**1 E-9**		**4 E-5**	**1 E-9**	**7 E-6**	**2 E-10**
(subchronic)								
Average								
Chlordane		7.6 E-6	--	1.2	9.1 E-6	--	1.5 E-6	--
Totals		**8 E-6**			**9 E-6**		**2 E-6**	
Reasonable Maximum								
Chlordane		3.3 E-5	--	1.2	4.0 E-5	--	6.6 E-6	--
Totals		**3 E-5**			**4 E-5**		**7 E-6**	

Table F-38
(Continued)

Exposure Scenario	Primary Exposure Pathway	1993 Risk Assessment Results		1995 Risk Assessment Results				
							Relative Change In 1993 Risk Value	
		Noncancer Hazard	Cancer Risk	Risk Ratio	Adjusted Noncancer Hazard	Adjusted Cancer Risk	Noncancer Hazard	Cancer Risk
Future Recreational - Child (chronic)	Dermal Contact							
Average								
Chlordane		2.0 E-5	--	1.2	2.4 E-5	--	4.0 E-6	--
Totals		**2 E-5**			**2 E-5**		**4 E-6**	
Reasonable Maximum								
Chlordane		8.8 E-5	--	1.2	1.1 E-4	--	1.8 E-5	--
Totals		**9 E-5**			**1 E-4**		**2 E-5**	
(subchronic)								
Average								
Chlordane		2.0 E-5	--	1.2	2.4 E-5	--	4.0 E-6	--
Totals		**2 E-5**			**2 E-5**		**4 E-6**	
Reasonable Maximum								
Chlordane		8.8 E-5	--	1.2	1.1 E-4	--	1.8 E-5	--
Totals		**9 E-5**			**1 E-4**		**2 E-5**	

-- = No Value Available

Relative change = (1995 adjusted risk value) - (1993 risk value).

F.10.4 New COCs in 1995

Cancer and noncancer risk estimates were recalculated for the new COCs detected in sludge and duck tissue samples. The exposure concentrations for these COCs are listed in Table F-37, and Table F-1 presents their respective toxicity values.

The only exposure scenario and pathway evaluated using the new COCs was the following:

- Current/Future Recreational (Hunter)— (adult and child)
  - — Dermal contact with sludge
  - — Ingestion of waterfowl (duck)

F.10.5 Summary of 1995 Results

Table F-39 presents the 1995 cancer risk and noncancer hazard estimates for the exposure scenarios at Lake Holloman. A discussion of the risk estimates for each of these scenarios is presented below.

Current/Future Recreational (hunter)

In this scenario, cancer and noncancer risk estimates for both children and adults are based entirely on the ingestion of the waterfowl. Since the risk estimates are identical to those predicted at Pond G, refer to Section F.8.5 for a discussion of the health risks associated with this exposure pathway.

Although exposure to new COCs in sludge were also evaluated, this exposure pathway contributed less than 0.1% to the total risk estimates for both children and adults.

The pathway- and chemical-specific cancer and noncancer risk summaries for the new COCs are listed in Appendix G, Tables G-22 through G-24, and G-25 and G-26 for adults and children, respectively.

F.10.6 Conclusions

Cancer risk estimates are greater than 1E-6 only for adults in the recreational exposure scenario. Noncancer hazard indices are less than 1.0 in all scenarios at Lake Holloman.

The cancer risks estimated for the adult recreational scenario are based entirely on the ingestion of waterfowl. In this addendum, exposure to the COCs in waterfowl, and resultant risk estimates, was identical at Pond G, the ditch, and Lakes Holloman and Stinky. A complete discussion of the risks from ingesting waterfowl is presented in Section 4 of the risk assessment addendum report.

Table F-39
Summary of the 1995 Risk Assessment Results
Lake Holloman

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current/Future					
Off-site Recreational - Adult					
(chronic)	**Cancer Risk**				
	'93 Results (b)	--	--		
	'95 Ratios (a)	2 E-11	2 E-10		
	'95 New COPCs	3 E-7	6 E-6		
	Total	3 E-7	***6 E-6***	***4,4'-DDD (3%)***	Ingestion - Waterfowl
				4,4'-DDE (23%)	Ingestion - Waterfowl
				Dieldrin (15%)	Ingestion - Waterfowl
				gamma-Chlordane (4%)	Ingestion - Waterfowl
				Oxychlordane (18%)	Ingestion - Waterfowl
				PCBs (total) (36%)	Ingestion - Waterfowl
	Hazard Index				
	'93 Results (b)	--	--		
	'95 Ratios (a)	2 E-6	7 E-6	NA	NA
	'95 New COPCs	0.04	0.3		
	Total	0.04	0.3		
(subchronic)	**Cancer Risk**	NA	NA	NA	NA
	Hazard Index				
	'93 Results (b)	--	--		
	'95 Ratios (a)	2 E-6	7 E-6	NA	NA
	'95 New COPCs	0.03	0.2		
	Total	0.03	0.2		

Table F-39
(Continued)

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current/Future					
Off-site Recreational - Child					
(chronic)	**Cancer Risk**	NA	NA	NA	NA
	Hazard Index				
	'93 Results (b)	–	–		
	'95 Ratios (a)	4 E-6	2 E-5	NA	NA
	'95 New COPCs	0.1	0.9		
	Total	0.1	1		
(subchronic)	**Cancer Risk**	NA	NA	NA	NA
	Hazard Index				
	'93 Results (b)	–	–		
	'95 Ratios (a)	4 E-6	2 E-5	NA	NA
	'95 New COPCs	0.08	0.5		
	Total	0.08	0.5		

– = No Value Available
NA = Not Applicable

(a) Values shown are the "relative change in the 1993 risks" which are based on the 1995 risk ratios.

(b) These estimates were based primarily on the ingestion of waterfowl. Only risks from the new COPCs are used in the 1995 estimates since duck tissue samples replaced the modeled data used in the 1993 assessment.

(c) These COPCs are not shown individually since their hazard quotients only total 0.4.

(d) These COPCs are not shown individually since their hazard quotients only total 0.1.

F.11 Lake Stinky

F.11.1 1993 Risk Assessment Results

The following two exposure scenarios were considered at Lake Stinky in the 1993 risk assessment:

- Current/Future Recreational—Hunters (chronic)
  - — Adult
  - — Child

- Future Beef Consumer—Agricultural
  - — Adult
  - — Child

The results of the 1993 human health risk assessment for Lake Stinky are summarized in Table F-40. The lists the COCs and exposure pathways that drove the overall risk estimates for each exposure scenario associated with the site in the 1993 assessment.

Cancer risk estimates were greater than 1 E-6 only for adults in the current/future recreational scenario. Noncancer hazard estimates were less than 1.0 in all scenarios.

F.11.2 Summary of Additional Sampling

The 1993 risk assessment assumed that contact with contaminants at Lake Stinky could occur through direct or indirect exposure to groundwater, surface water, soil, and/or waterfowl. Table F-41 presents the media that were sampled and evaluated for the 1993 risk assessment and those sampled during the 1994 investigation including an indication of whether or not COCs were detected from either investigations.

For the 1995 addendum, soil was sampled during the 1994 investigation and waterfowl was sampled in 1993 (after the 1993 risk assessment had been prepared). The rationale used in selecting which exposure media would be sampled during the 1994 investigation is presented in the following sections by medium.

Groundwater

The future beef consumer scenario was the only setting associated with exposure to groundwater in the 1993 risk assessment. In this scenario it is assumed that cattle could be exposed to contaminants by ingesting grasses irrigated by groundwater. Human exposure could then occur when the meat of these cattle was ingested. In reality the groundwater is too saline for this use. Cancer risk and noncancer hazard estimates for this scenario were less than 1E-6 and 1.0, respectively, in 1993. In the 1995 addendum, it is assumed that the risks estimated for this scenario

Table F-40
Summary of the 1993 Risk Assessment Results
Lake Stinky

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current/Future					
Off-site Recreational - Adult					
(chronic)	Cancer Risk	5 E-7	*1 E-5*	***Arsenic (45%)***	Inhalation - Dust
				Pentachlorobiphenyls (25%)	Ingestion - Waterfowl
				* ***Heptachlor epoxide (19%)***	Inhalation - Dust
				Hexachlorobiphenyls (7%)	Ingestion - Waterfowl
				Tetrachlorobiphenyls (3%)	Ingestion - Waterfowl
				Hexachlorodibenzofuran (1%)	Ingestion - Waterfowl
				2,3,7,8-TCDD (1%)	Ingestion - Waterfowl
	Hazard Index	0.007	0.09	NA	NA
Current/Future					
Off-site Recreational - Child					
(chronic)	Cancer Risk	NA	NA	NA	NA
	Hazard Index	0.02	0.2		
Future					
Beef Consumer					
Adult	Cancer Risk	2 E-8	4 E-7	NA	NA
	Hazard Index	0.0006	0.004		
Child	Cancer Risk	NA	NA	NA	NA
	Hazard Index	0.001	0.01		

* These analytes have not been detected (ND) at the sewage lagoon system during subsequent ivestigations and are no longer COPCs at these sites. Therefore, these analytes do not contribute to overal risk estimates at the sewage lagoon system.

NA = Not Applicable

Table F-41
Media Sampled in Lake Stinky

Exposure Media	1993 Risk Assessment		1994 Investigation	
	Media Sampled	COPCs Detected	Media Sampled	COPCs Detected
Groundwater	x	x		
Surface Water	x	x		
Soil	x	x	x	x
Waterfowl			x	x

Note: Waterfowl samples were collected in 1993, but were not available for use in the 1993 risk assessment. These data are presented along with data from the 1994 investigation since they are used to estimate risks in the 1995 addendum.

will remain the same as those estimated in 1993, or decrease in the future. Exposure to groundwater was not reevaluated in 1995 because of the following reasons:

1) Holloman AFB has established Base-wide management strategies that reduce further contamination of surface water and groundwater throughout the sewage lagoons and lakes; and

2) The groundwater beneath Holloman AFB is unfit for human consumption and is too saline for watering livestock; therefore, it is unlikely that cattle would ingest the contaminants in groundwater.

Surface Water

The 1993 cancer risk and noncancer hazard estimates for surface water were less than 1E-06 and 1, respectively, at Lake Stinky. The exposure scenario assumed that cattle drank from water in the southern portion of Lake Stinky, and that human exposure could occur during the ingestion of the cattle meat. Because of these risk results for surface water, further sampling was not performed at Lake Stinky.

Soil

Additional soil samples were collected from Lake Stinky in 1994 and were analyzed for the presence of organochlorine pesticides and metals. In the 1993 risk assessment, arsenic and heptachlor epoxide (a suspect analyte) were cancer risk drivers in the adult recreational scenario. Because arsenic was detected below its background UTL in 1993 and during the 1994 investigation, arsenic is no longer included as a COC in soil at Lake Stinky. Heptachlor epoxide has also been removed as a COC since it was not detected in the soils at this lake or at any other site in the sewage

lagoons and lakes. Therefore, arsenic and heptachlor epoxide do not contribute to the overall cancer risk estimates in the future recreational scenario at Lake Stinky. No other COCs in soil were risk drivers in the 1993 risk assessment.

Four new COCs detected in the 1994 soil samples were 4,4'-DDD, 4,4'-DDT, dieldrin, and heptachlor. Although all four were detected at concentrations below the EPA Region III soil screening level, they were retained as COCs since pesticides have frequently been detected at Holloman AFB. The exposure concentrations for these new COCs are presented in Table F-42, and Section F.10.4 discusses the use of these analytes in deriving risk estimates for new COCs in 1995.

Waterfowl

In the 1993 risk assessment, the contaminant concentrations in waterfowl (duck tissue) used to estimate health risks in the recreational scenario were modeled in the absence of actual tissue samples. Although one duck was caught in 1993 (to obtain tissue samples), the analytical data were not available for use in the 1993 risk assessment. In this addendum, only the tissue samples from this duck were used to estimate health risks from ingesting waterfowl in this scenario. This duck was estimated to be 9 months old when caught, and was therefore able to feed or reside at locations other than the Lagoons and Lakes. The COCs detected in the breast meat of this bird and their exposure concentrations are provided in Table F-42.

F.11.3 1995 Risk Ratios

Analytes that have a risk ratio greater than 1.0, or that contributed at least 1% to the overall risk value in the 1993 risk assessment (risk drivers), were used to compute new risk values. No analytes were evaluated using this method for the following reasons:

Risk Ratios > 1.0

There were no COCs in soil that had a risk ratio greater than 1.0.

Risk Drivers

There were no risk drivers in the soil at Lake Stinky.

F.11.4 New COCs in 1995

Cancer and noncancer risk estimates were recalculated for the new COCs detected in soil and duck tissue samples. The exposure concentrations for these COCs are listed in Table F-42, and Table F-1 presents their respective toxicity values.

The exposure scenario and its associated pathways evaluated using the new COCs are the following:

Table F-42
Exposure Concentrations for the New COPCs
Lake Stinky

Analyte	Soil (mg/kg)		Waterfowl (a) (mg/kg)	
	Average	Reas. Max.	Average	Reas. Max.
2,4'-DDE	0	0	1.2 E-2	1.2 E-2
4,4'-DDD	2.5 E-5	5.3 E-5	1.4 E-2	1.4 E-2
4,4'-DDE	0	0	8.1 E-2	8.7 E-2
4,4'-DDT	1.1 E-3	1.9 E-3	2.8 E-4	2.8 E-4
Antimony	0	0	2.5 E-2	5.0 E-2
Arsenic	0	0	2.0 E-2	2.0 E-2
Cadmium (food)	0	0	5.0 E-2	5.0 E-2
Chromium	0	0	9.5 E-2	1.4 E-1
Dieldrin	6.1 E-4	1.3 E-3	1.2 E-3	1.2 E-3
Endrin	0	0	1.2 E-3	1.2 E-3
gamma-Chlordane	0	0	3.6 E-3	3.8 E-3
Heptachlor	3.3 E-4	6.8 E-4	1.7 E-4	2.0 E-4
Hexachlorobenzene	0	0	6.3 E-4	6.5 E-4
Magnesium	0	0	1.1 E+3	1.2 E+3
Mercury	0	0	6.5 E-2	6.7 E-2
Nickel	0	0	5.5 E-2	7.0 E-2
Oxychlordane	0	0	1.8 E-2	1.9 E-2
PCBs (total)	0	0	5.7 E-3	6.0 E-3
Selenium	0	0	2.8 E+0	2.9 E+0
Silver	0	0	2.0 E-1	2.1 E-1
Thallium	0	0	5.0 E-2	8.0 E-2
trans-Nonachlor	0	0	4.0 E-4	4.4 E-4

(a) Exposure concentrations in waterfowl are identical at Pond G, the Ditch, and the Lakes.

- Current/Future Recreational—(Hunter) (adult and child)
  - — Dermal contact with soil
  - — Ingestion of waterfowl (duck)

F.11.5 Summary of 1995 Results

Table F-43 presents the 1995 cancer risk and noncancer hazard estimates for the exposure scenario at Lake Stinky. A discussion of the risk estimates for this scenario is presented below.

Current/Future Recreational (hunter)

In this scenario, cancer and noncancer risk estimates for both children and adults are based entirely on the ingestion of the waterfowl. Since these risk estimates are identical to those predicted at Pond G, refer to Section F.8.5 for a discussion of the health risks associated with this exposure.

Although exposure to the new COCs in soil were also evaluated, this exposure pathway contributed less than 0.1% to the total risk estimates for both children and adults.

The pathway- and chemical-specific cancer and noncancer risk summaries for the new COCs are listed in Appendix G, Tables G-27 through G-29, and G-30 and G-31 for adults and children, respectively.

F.11.6 Conclusions

Cancer risk estimates are greater than 1E-6 only for adults in the recreational exposure scenario. Noncancer hazard estimates are less than 1.0 in all scenarios at Lake Stinky.

The cancer risks estimated for the adult recreational scenario are based entirely on the ingestion of waterfowl. In this addendum, exposure to the COCs in waterfowl, and resultant risk estimates, was identical at Pond G, the ditch, and Lakes Holloman and Stinky. A complete discussion of the risks from ingesting waterfowl is presented in Section 4 of the risk assessment addendum report.

Table F-43
Summary of the 1995 Risk Assessment Results
Lake Stinky

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current/Future					
Off-site Recreational - Adult					
(chronic)	**Cancer Risk**				
	'93 Results (b)	–	–		
	'95 Ratios (a)	–	–		
	'95 New COPCs	3 E-7	6 E-6		
	Total	3 E-7	***6 E-6***	***4,4'-DDD (3%)***	Ingestion - Waterfowl
				4,4'-DDE (23%)	Ingestion - Waterfowl
				Dieldrin (15%)	Ingestion - Waterfowl
				gamma-Chlordane (4%)	Ingestion - Waterfowl
				Oxychlordane (18%)	Ingestion - Waterfowl
				PCBs (total) (36%)	Ingestion - Waterfowl
	Hazard Index				
	'93 Results (b)	–	–		
	'95 Ratios (a)	–	–	NA	NA
	'95 New COPCs	0.04	0.3		
	Total	0.04	0.3		
(subchronic)	**Cancer Risk**	NA	NA	NA	NA
	Hazard Index				
	'93 Results (b)	–	–		
	'95 Ratios (a)	2 E-6	7 E-6	NA	NA
	'95 New COPCs	0.03	0.2		
	Total	0.03	0.2		

Table F-43
(Continued)

Exposure Scenario	Risk for Scenario	Average	Reasonable Maximum	Analyte Driving Risk	Primary Exposure Pathway
Current/Future					
Offsite Recreational - Child					
(chronic)	**Cancer Risk**	NA	NA	NA	NA
	Hazard Index				
	'93 Results (b)	–	–		
	'95 Ratios (a)	–	–	NA	NA
	'95 New COPCs	0.1	0.9		
	Total	0.1	0.9		
(subchronic)	**Cancer Risk**	NA	NA	NA	NA
	Hazard Index				
	'93 Results (b)	–	–		
	'95 Ratios (a)	4 E-6	2 E-5	NA	NA
	'95 New COPCs	0.08	0.5		
	Total	0.08	0.5		

– = No Value Available
NA = Not Applicable

(a) Values shown are the "relative change in the 1993 risks" which are based on the 1995 risk ratios.

(b) These estimates were based primarily on the ingestion of waterfowl. Only risks from the new COPCs are used in the 1995 estimates since duck tissue samples replaced the modeled data used in the 1993 assessment.

(c) These COPCs are not shown individually since their hazard quotients only total 0.4.

(d) These COPCs are not shown individually since their hazard quotients only total 0.1.

APPENDIX G

Risk Summary Tables

Human Health Risk Estimates for New COPCs

Table G-1
Cancer Risk Estimates for the New COPCs at Pond C

Analyte	Dermal Contact with Sludge	Total Risk	Percent Contribution
Current Onsite Worker			
Average Cancer Risk			
alpha-BHC	1.0 E-12	1 E-12	2.4
Dieldrin	3.7 E-11	4 E-11	88.1
Kepone	4.0 E-12	4 E-12	9.4
Total by pathway	4.3 E-11		
% Contribution by pathway	100		
Scenario Total		**4 E-11**	
Reas. Max. Cancer Risk			
alpha-BHC	8.2 E-11	8 E-11	3.6
Dieldrin	1.9 E-09	2 E-09	85.9
Kepone	2.3 E-10	2 E-10	10.4
Total by pathway	2 E-09		
% Contribution by pathway	100		
Scenario Total		**2 E-09**	

Table G-2
Noncancer Hazard Index Estimates for the New COPCs at Pond C

Analyte	Dermal Contact with Sludge	Total	Percent Contribution
Current Onsite Worker (Chronic)			
Average Noncancer Hazard Index Summary			
Cyanide	1.3 E-05	1 E-5	94.8
Dieldrin	2.8 E-07	3 E-7	2.0
gamma-BHC	1.4 E-09	1 E-9	0.0
Kepone	4.3 E-07	4 E-7	3.2
Total by pathway	1.4 E-05		
% Contribution by pathway	100		
Scenario Total		**1 E-5**	
Reas. Max. Noncancer Hazard Index Summary			
Cyanide	5.4 E-04	5 E-4	97.4
Dieldrin	5.2 E-06	5 E-6	0.9
gamma-BHC	2.8 E-08	3 E-8	0.0
Kepone	9.1 E-06	9 E-6	1.6
Total by pathway	5.6 E-04		
% Contribution by pathway	100		
Scenario Total		**6 E-4**	
Current Onsite Worker (Subchronic)			
Average Noncancer Hazard Index Summary			
Cyanide	2.6 E-05	3 E-5	98.9
Dieldrin	2.8 E-07	3 E-7	1.1
gamma-BHC	1.4 E-10	1 E-10	0.0
Total by pathway	2.6 E-05		
% Contribution by pathway	100		
Scenario Total		**3 E-5**	
Reas. Max. Noncancer Hazard Index Summary			
Cyanide	1.1 E-03	1 E-3	99.5
Dieldrin	5.2 E-06	5 E-6	0.5
gamma-BHC	2.8 E-09	3 E-9	0.0
Total by pathway	1.1 E-03		
% Contribution by pathway	100		
Scenario Total		**1 E-3**	

Table G-3
Cancer Risk Estimates for the New COPCs at Pond D

Analyte	Dermal Contact with Sludge	Total Risk	Percent Contribution
Current Onsite Worker			
Average Cancer Risk			
Aldrin	1.6 E-12	2 E-12	37.2
alpha-BHC	2.7 E-12	3 E-12	62.8
Total by pathway	4.3 E-12		
% Contribution by pathway	100		
Scenario Total		**4 E-12**	
Reas. Max. Cancer Risk			
Aldrin	5.8 E-12	6 E-12	30.4
alpha-BHC	1.3 E-11	1 E-11	69.6
Total by pathway	1.9 E-11		
% Contribution by pathway	100		
Scenario Total		**2 E-11**	

Table G-4
Noncancer Hazard Index Estimates for the New COPCs at Pond D

Analyte	Dermal Contact with Sludge	Total	Percent Contribution
Current Onsite Worker (Chronic)			
Average Noncancer Hazard Index Summary			
Aldrin	9.7 E-09	1 E-8	0.3
Endosulfan II	7.4 E-14	7 E-14	0.0
Thallium	3.4 E-06	3 E-6	99.7
Total by pathway	3.4 E-06		
% Contribution by pathway	100		
Scenario Total		**3 E-6**	
Reas. Max. Noncancer Hazard Index Summary			
Aldrin	1.3 E-08	1 E-8	0.3
Endosulfan II	1.2 E-13	1 E-13	0.0
Thallium	4.3 E-06	4 E-6	99.7
Total by pathway	4.3 E-06		
% Contribution by pathway	100		
Scenario Total		**4 E-6**	
Current Onsite Worker (Subchronic)			
Average Noncancer Hazard Index Summary			
Aldrin	9.70E-09	1 E-8	2.8
Thallium	3.40E-07	3 E-7	97.2
Total by pathway	3.50E-07		
% Contribution by pathway	100		
Scenario Total		**4 E-7**	
Reas. Max. Noncancer Hazard Index Summary			
Aldrin	1.30E-08	1 E-8	2.9
Thallium	4.30E-07	4 E-7	97.1
Total by pathway	4.40E-07		
% Contribution by pathway	100		
Scenario Total		**4 E-7**	

Table G-5
Cancer Risk Estimates for the New COPCs at Pond E

Analyte	Dermal Contact with Sludge	Total Risk	Percent Contribution
Current Onsite Worker			
Average Cancer Risk			
Dieldrin	1.4 E-12	1 E-12	100.0
Total by pathway	1 E-12		
% Contribution by pathway	100		
Scenario Total		**1 E-12**	
Reas. Max. Cancer Risk			
Dieldrin	4.7 E-12	5 E-12	100.0
Total by pathway	5 E-12		
% Contribution by pathway	100		
Scenario Total		**5 E-12**	

Table G-6
Noncancer Hazard Index Estimates for the New COPCs at Pond E

Analyte	Dermal Contact with Sludge	Total	Percent Contribution
Current Onsite Worker			
Average Noncancer Hazard Index Summary			
Dieldrin	1.1 E-08	2 E-7	5.4
gamma-BHC	3.6 E-10	3 E-9	0.1
Thallium	4.2 E-06	4 E-6	94.5
Total by pathway	4 E-6		
% Contribution by pathway	95		
Scenario Total		**5 E-6**	
Reas. Max. Noncancer Hazard Index Summary			
Dieldrin	1.3 E-08	7 E-6	39.2
gamma-BHC	4.7 E-10	8 E-8	0.4
Thallium	1.0 E-05	1 E-5	60.4
Total by pathway	1 E-5		
% Contribution by pathway	60		
Scenario Total		**2 E-5**	

Table G-7
Cancer Risk Estimates for the New COPCs at Pond G

Analyte	Dermal Contact with Sludge	Total Risk	Percent Contribution
Current Onsite Worker			
Average Cancer Risk			
Dieldrin	3.0 E-12	3 E-12	53.2
Kepone	2.6 E-12	3 E-12	46.8
Total by pathway	6 E-12		
% Contribution by pathway	100		
Scenario Total		**6 E-12**	
Reas. Max. Cancer Risk			
Dieldrin	9.6 E-12	1 E-11	48.4
Kepone	1.0 E-11	1 E-11	51.6
Total by pathway	2 E-11		
% Contribution by pathway	100		
Scenario Total		**2 E-11**	

Table G-8
Noncancer Hazard Index Estimates for the New COPCs at Pond G

Analyte	Dermal Contact with Sludge	Total	Percent Contribution
Current Onsite Worker (Chronic)			
Average Noncancer Hazard Index Summary			
delta-BHC	7.3 E-09	7 E-9	2.3
Dieldrin	2.2 E-08	2 E-8	7.1
Kepone	2.8 E-07	3 E-7	90.5
Total by pathway	3 E-7		
% Contribution by pathway	100		
Scenario Total		**3 E-7**	
Reasonable Maximum Noncancer Summary			
delta-BHC	9.1 E-09	9 E-9	2.1
Dieldrin	2.6 E-08	3 E-8	6.0
Kepone	4.0 E-07	4 E-7	91.9
Total by pathway	4 E-7		
% Contribution by pathway	100		
Scenario Total		**4 E-7**	

Table G-9
Noncancer Hazard Index Estimates for the New COPCs at Pond G

Analyte	Dermal Contact with Sludge	Total	Percent Contribution
Current/Future Onsite Trespasser - Teenager (Subchronic)			
Average Noncancer Hazard Index Summary			
delta-BHC	7.30E-10	7 E-10	3.2
Dieldrin	2.20E-08	2 E-8	96.9
Total by pathway	2 E-8		
% Contribution by pathway	100		
Scenario Total		**2 E-8**	
Reas. Max. Noncancer Hazard Index Summary			
delta-BHC	9.10E-10	9 E-10	3.4
Dieldrin	2.60E-08	3 E-8	96.6
Total by pathway	3 E-8		
% Contribution by pathway	100		
Scenario Total		**3 E-8**	

Table G-10
Cancer Risk Estimates for the New COPCs at Pond G

Analyte	Ingestion of Waterfowl	Total Risk	Percent Contribution
Current/Future Onsite Recreational - Adult			
Average Cancer Risk			
4,4'-DDD	7.7 E-9	8 E-9	2.8
4,4'-DDE	6.0 E-8	6 E-8	21.7
4,4'-DDT	2.1 E-10	2 E-10	0.1
Dieldrin	4.3 E-8	4 E-8	15.5
gamma-Chlordane	1.0 E-8	1 E-8	3.7
Heptachlor	1.7 E-9	2 E-9	0.6
Hexachlorobenzene	2.3 E-9	2 E-9	0.8
Oxychlordane	5.1 E-8	5 E-8	18.6
PCBs (total)	9.9 E-8	1 E-7	35.7
trans-Nonachlor	1.2 E-9	1 E-9	0.4
Total by pathway	3 E-7		
% Contribution by pathway	100		
Scenario Total		**3 E-7**	
Reas. Max. Cancer Risk			
4,4'-DDD	1.6 E-7	2 E-7	2.6
4,4'-DDE	1.5 E-6	1 E-6	22.9
4,4'-DDT	4.7 E-9	5 E-9	0.1
Dieldrin	9.4 E-7	9 E-7	14.8
gamma-Chlordane	2.4 E-7	2 E-7	3.8
Heptachlor	4.3 E-8	4 E-8	0.7
Hexachlorobenzene	5.1 E-8	5 E-8	0.8
Oxychlordane	1.2 E-6	1 E-6	18.2
PCBs (total)	2.3 E-6	2 E-6	35.7
trans-Nonachlor	2.8 E-8	3 E-8	0.4
Total by pathway	6 E-6		
% Contribution by pathway	100		
Scenario Total		**6 E-6**	

Table G-11
Noncancer Hazard Index Estimates for the New COPCs at Pond G

Analyte	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Onsite Recreational - Adult (Chronic)			
Average Noncancer Hazard Index Summary			
4,4'-DDD	3.6 E-4	4 E-4	1.1
4,4'-DDE	9.9 E-6	1 E-5	0.9
4,4'-DDT	1.1 E-3	1 E-3	0.0
Antimony	1.2 E-3	1 E-3	2.7
Arsenic	8.6 E-4	9 E-4	2.8
Cadmium (food)	1.7 E-6	2 E-6	2.1
Chromium	4.2 E-4	4 E-4	0.0
Dieldrin	6.9 E-5	7 E-5	1.0
Endrin	1.0 E-3	1 E-3	0.2
gamma-Chlordane	6.0 E-6	6 E-6	2.5
Heptachlor	1.4 E-5	1 E-5	0.0
Hexachlorobenzene	4.7 E-3	5 E-3	0.0
Magnesium	3.8 E-3	4 E-3	11.5
Mercury	4.7 E-5	5 E-5	9.2
Nickel	5.1 E-3	5 E-3	0.1
Oxychlordane	1.4 E-3	1 E-3	12.5
PCBs (total)	9.9 E-3	1 E-2	3.4
Selenium	6.9 E-4	7 E-4	24.0
Silver	9.9 E-3	1 E-2	1.7
Thallium	1.2 E-4	1 E-4	24.0
trans-Nonachlor	2.8 E-4	3 E-4	0.3
Total by pathway	4 E-2		
% Contribution by pathway	100		
Scenario Total		**4 E-2**	

Table G-11
(Continued)

Analyte	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Onsite Recreational - Adult (Chronic)			
Reas. Max. Noncancer Hazard Index Summary			
4,4'-DDD	3.2 E-3	3 E-3	1.0
4,4'-DDE	2.5 E-3	3 E-3	0.8
4,4'-DDT	6.4 E-5	6 E-5	0.0
Antimony	1.4 E-2	1 E-2	4.4
Arsenic	7.7 E-3	8 E-3	2.4
Cadmium (food)	5.6 E-3	6 E-3	1.7
Chromium	1.6 E-5	2 E-5	0.0
Dieldrin	2.7 E-3	3 E-3	0.8
Endrin	4.7 E-4	5 E-4	0.1
gamma-Chlordane	7.3 E-3	7 E-3	2.2
Heptachlor	4.7 E-5	5 E-5	0.0
Hexachlorobenzene	9.4 E-5	9 E-5	0.0
Magnesium	3.3 E-2	3 E-2	10.2
Mercury	2.5 E-2	3 E-2	7.8
Nickel	4.0 E-4	4 E-4	0.1
Oxychlordane	3.5 E-2	4 E-2	10.8
PCBs (total)	9.9 E-3	1 E-2	3.0
Selenium	6.9 E-2	7 E-2	21.1
Silver	4.7 E-3	5 E-3	1.5
Thallium	1.0 E-1	1 E-1	31.7
trans-Nonachlor	8.2 E-4	8 E-4	0.3
Total by pathway	3.2 E-1		
% Contribution by pathway	100		
Scenario Total		**3 E-1**	

Table G-12
Noncancer Hazard Index Estimates for the New COPCs at Pond G

Analyte	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Onsite Recreational - Adult (Subchronic)			
Average Noncancer Hazard Index Summary			
4,4'-DDD	4.7 E-4	5 E-4	1.9
4,4'-DDE	3.6 E-4	4 E-4	1.4
4,4'-DDT	9.9 E-6	1 E-5	0.0
Antimony	1.1 E-3	1 E-3	4.2
Arsenic	1.2 E-3	1 E-3	4.5
Cadmium (food)	8.6 E-4	9 E-4	3.4
Chromium	1.7 E-6	2 E-6	0.0
Dieldrin	4.2 E-4	4 E-4	1.6
Endosulfan sulfate	0.0 E+0	8 E-12	0.0
Endrin	6.9 E-5	7 E-5	0.3
gamma-Chlordane	1.0 E-3	1 E-3	4.0
Heptachlor	6.0 E-6	6 E-6	0.0
Mercury	3.8 E-3	4 E-3	14.5
Methoxychlor	0.0 E+0	2 E-11	0.0
Nickel	4.7 E-5	5 E-5	0.2
Oxychlordane	5.1 E-3	5 E-3	19.7
Selenium	9.9 E-3	1 E-2	37.4
Silver	6.9 E-4	7 E-4	2.7
Thallium	9.9 E-4	1 E-3	3.7
trans-Nonachlor	1.2 E-4	1 E-4	0.5
Total by pathway	3 E-2		
% Contribution by pathway	100		
Scenario Total		**3 E-2**	

Table G-12
(Continued)

Analyte	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Onsite Recreational - Adult (Subchronic)			
Reas. Max. Noncancer Hazard Index Summary			
4,4'-DDD	3.2 E-3	3 E-3	1.7
4,4'-DDE	2.5 E-3	3 E-3	1.4
4,4'-DDT	6.4 E-5	6 E-5	0.0
Antimony	1.4 E-2	1 E-2	7.6
Arsenic	7.7 E-3	8 E-3	4.1
Cadmium (food)	5.6 E-3	6 E-3	3.0
Chromium	1.6 E-5	2 E-5	0.0
Dieldrin	2.7 E-3	3 E-3	1.5
Endosulfan sulfate	0.0 E+0	3 E-11	0.0
Endrin	4.7 E-4	5 E-4	0.2
gamma-Chlordane	7.3 E-3	7 E-3	3.9
Heptachlor	4.7 E-5	5 E-5	0.0
Mercury	2.5 E-2	3 E-2	13.6
Methoxychlor	0.0 E+0	8 E-11	0.0
Nickel	4.0 E-4	4 E-4	0.2
Oxychlordane	3.5 E-2	4 E-2	18.8
Selenium	6.9 E-2	7 E-2	35.7
Silver	4.7 E-3	5 E-3	2.6
Thallium	1.0 E-2	1 E-2	5.4
trans-Nonachlor	8.2 E-4	8 E-4	0.4
Total by pathway	2 E-1		
% Contribution by pathway	100		
Scenario Total		**2 E-1**	

Table G-13
Noncancer Hazard Index Estimates for the New COPCs at Pond G

Analyte	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Onsite Recreational - Child (Chronic)			
Average Noncancer Hazard Index Summary			
4,4'-DDD	1.5 E-3	2 E-3	1.2
4,4'-DDE	1.1 E-3	1 E-3	0.9
4,4'-DDT	3.0 E-5	3 E-5	0.0
Antimony	3.3 E-3	3 E-3	2.7
Arsenic	3.6 E-3	4 E-3	2.9
Cadmium (food)	2.7 E-3	3 E-3	2.1
Chromium	5.1 E-6	5 E-6	0.0
Dieldrin	1.3 E-3	1 E-3	1.0
Endrin	2.1 E-4	2 E-4	0.2
gamma-Chlordane	3.2 E-3	3 E-3	2.6
Heptachlor	1.8 E-5	2 E-5	0.0
Hexachlorobenzene	4.2 E-5	4 E-5	0.0
Magnesium	1.4 E-2	1 E-2	11.4
Mercury	1.2 E-2	1 E-2	9.3
Nickel	1.5 E-4	1 E-4	0.1
Oxychlordane	1.5 E-2	2 E-2	12.4
PCBs (total)	4.3 E-3	4 E-3	3.5
Selenium	3.0 E-2	3 E-2	23.8
Silver	2.1 E-3	2 E-3	1.7
Thallium	3.0 E-2	3 E-2	23.8
trans-Nonachlor	3.6 E-4	4 E-4	0.3
Total by pathway	1 E-1		
% Contribution by pathway	100		
Scenario Total		**1 E-1**	

Table G-13
(Continued)

Analyte	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Onsite Recreational - Child (Chronic)			
Reasonable Maximum Noncancer Hazard IndexSummary			
4,4'-DDD	9.0 E-3	9 E-3	1.0
4,4'-DDE	7.3 E-3	7 E-3	0.8
4,4'-DDT	1.8 E-4	2 E-4	0.0
Antimony	4.0 E-2	4 E-2	4.4
Arsenic	2.1 E-2	2 E-2	2.4
Cadmium (food)	1.6 E-2	2 E-2	1.8
Chromium	4.3 E-5	4 E-5	0.0
Dieldrin	7.7 E-3	8 E-3	0.9
Endrin	1.3 E-3	1 E-3	0.1
gamma-Chlordane	2.0 E-2	2 E-2	2.2
Heptachlor	1.3 E-4	1 E-4	0.0
Hexachlorobenzene	2.6 E-4	3 E-4	0.0
Magnesium	9.0 E-2	9 E-2	10.0
Mercury	7.3 E-2	7 E-2	8.1
Nickel	1.1 E-3	1 E-3	0.1
Oxychlordane	9.9 E-2	1 E-1	10.9
PCBs (total)	2.7 E-2	3 E-2	3.0
Selenium	1.9 E-1	2 E-1	20.9
Silver	1.3 E-2	1 E-2	1.5
Thallium	2.8 E-1	3 E-1	31.4
trans-Nonachlor	2.4 E-3	2 E-3	0.3
Total by pathway	9 E-1		
% Contribution by pathway	100		
Scenario Total		**9 E-1**	

Table G-14
Noncancer Hazard Index Estimates for the New COPCs at Pond G

Analyte	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Onsite Recreational - Child (Subchronic)			
Average Noncancer Hazard Index Summary			
4,4'-DDD	1.5 E-3	2 E-3	1.9
4,4'-DDE	1.1 E-3	1 E-3	1.4
4,4'-DDT	3.0 E-5	3 E-5	0.0
Antimony	3.3 E-3	3 E-3	4.2
Arsenic	3.6 E-3	4 E-3	4.5
Cadmium (food)	2.7 E-3	3 E-3	3.4
Chromium	5.1 E-6	5 E-6	0.0
Dieldrin	1.3 E-3	1 E-3	1.6
Endosulfan sulfate	0.0 E+0	2 E-11	0.0
Endrin	2.1 E-4	2 E-4	0.3
gamma-Chlordane	3.2 E-3	3 E-3	4.0
Heptachlor	1.8 E-5	2 E-5	0.0
Mercury	1.2 E-2	1 E-2	14.5
Methoxychlor	0.0 E+0	6 E-11	0.0
Nickel	1.5 E-4	1 E-4	0.2
Oxychlordane	1.5 E-2	2 E-2	19.7
Selenium	3.0 E-2	3 E-2	37.4
Silver	2.1 E-3	2 E-3	2.7
Thallium	3.0 E-3	3 E-3	3.7
trans-Nonachlor	3.6 E-4	4 E-4	0.5
Total by pathway	8 E-2		
% Contribution by pathway	100		
Scenario Total		**8 E-2**	

Table G-14
(Continued)

Analyte	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Onsite Recreational - Child (Subchronic)			
Reas. Max. Noncancer Hazard Index Summary			
4,4'-DDD	9.0 E-3	9 E-3	1.7
4,4'-DDE	7.3 E-3	7 E-3	1.4
4,4'-DDT	1.8 E-4	2 E-4	0.0
Antimony	4.0 E-2	4 E-2	7.6
Arsenic	2.1 E-2	2 E-2	4.1
Cadmium (food)	1.6 E-2	2 E-2	3.0
Chromium	4.3 E-5	4 E-5	0.0
Dieldrin	7.7 E-3	8 E-3	1.5
Endosulfan sulfate	0.0 E+0	8 E-11	0.0
Endrin	1.3 E-3	1 E-3	0.2
gamma-Chlordane	2.0 E-2	2 E-2	3.9
Heptachlor	1.3 E-4	1 E-4	0.0
Mercury	7.3 E-2	7 E-2	13.6
Methoxychlor	0.0 E+0	2 E-10	0.0
Nickel	1.1 E-3	1 E-3	0.2
Oxychlordane	9.9 E-2	1 E-1	18.8
Selenium	1.9 E-1	2 E-1	35.7
Silver	1.3 E-2	1 E-2	2.6
Thallium	2.8 E-2	3 E-2	5.4
trans-Nonachlor	2.4 E-3	2 E-3	0.4
Total by pathway	5 E-1		
% Contribution by pathway	100		
Scenario Total		**5 E-1**	

Table G-15
Cancer Risk Estimates for the New COPCs at the Ditch

Analyte	Dermal Contact with Soil	Total Risk	Percent Contribution
Current Onsite Worker			
Average Cancer Risk			
Dieldrin	5.2 E-12	5 E-12	100
Total by pathway	5 E-12		
% Contribution by pathway	100		
Scenario Total		**5 E-12**	
Reas. Max. Cancer Risk			
Dieldrin	2.2 E-11	2 E-11	100.0
Total by pathway	2 E-11		
% Contribution by pathway	100		
Scenario Total		**2 E-11**	

Table G-16
Noncancer Hazard Index Estimates for the New COCs at the Ditch

Analyte	Dermal Contact with Soil	Total	Percent Contribution
Current Onsite Worker			
Average Noncancer Hazard Index Summary			
Dieldrin	3.9 E-8	4 E-8	84.9
Endosulfan sulfate	2.5 E-12	3 E-12	0.0
Endrin	6.9 E-9	7 E-9	15.0
Methoxychlor	7.8 E-12	8 E-12	0.0
Total by pathway	5 E-8		
% Contribution by pathway	100		
Scenario Total		**5 E-8**	
Reas. Max. Noncancer Hazard Index Summary			
Dieldrin	5.9 E-8	6 E-8	81.9
Endosulfan sulfate	4.6 E-12	5 E-12	0.0
Endrin	1.3 E-8	1 E-8	18.1
Methoxychlor	1.3 E-11	1 E-11	0.0
Total by pathway	7 E-8		
% Contribution by pathway	100		
Scenario Total		**7 E-8**	

Table G-17
Cancer Risk Estimates for the New COPCs at the Ditch

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total Risk	Percent Contribution
Current/Future Off-Site Recreational - Adult				
Average Cancer Risk				
4,4'-DDD	0.0 E+0	7.7 E-9	8 E-9	2.8
4,4'-DDE	0.0 E+0	6.0 E-8	6 E-8	21.7
4,4'-DDT	0.0 E+0	2.1 E-10	2 E-10	0.1
Dieldrin	1.6 E-11	4.3 E-8	4 E-8	15.5
gamma-Chlordane	0.0 E+0	1.0 E-8	1 E-8	3.7
Heptachlor	0.0 E+0	1.7 E-9	2 E-9	0.6
Hexachlorobenzene	0.0 E+0	2.3 E-9	2 E-9	0.8
Oxychlordane	0.0 E+0	5.1 E-8	5 E-8	18.6
PCBs (total)	0.0 E+0	9.9 E-8	1 E-7	35.7
trans-Nonachlor	0.0 E+0	1.2 E-9	1 E-9	0.4
Total by pathway	2 E-11	3 E-7		
% Contribution by pathway	0	100		
Scenario Total			**3 E-7**	
Reas. Max. Cancer Risk				
4,4'-DDD	0.0 E+0	1.6 E-7	2 E-7	2.6
4,4'-DDE	0.0 E+0	1.5 E-6	1 E-6	22.9
4,4'-DDT	0.0 E+0	4.7 E-9	5 E-9	0.1
Dieldrin	1.6 E-10	9.4 E-7	9 E-7	14.8
gamma-Chlordane	0.0 E+0	2.4 E-7	2 E-7	3.8
Heptachlor	0.0 E+0	4.3 E-8	4 E-8	0.7
Hexachlorobenzene	0.0 E+0	5.1 E-8	5 E-8	0.8
Oxychlordane	0.0 E+0	1.2 E-6	1 E-6	18.2
PCBs (total)	0.0 E+0	2.3 E-6	2 E-6	35.7
trans-Nonachlor	0.0 E+0	2.8 E-8	3 E-8	0.4
Total by pathway	2 E-10	6 E-6		
% Contribution by pathway	0	100		
Scenario Total			**6 E-6**	

Table G-18
Noncancer Hazard Index Estimates for the New COPCs at the Ditch

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult (Chronic)				
Average Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	4.7 E-4	5 E-4	1.1
4,4'-DDE	0.0 E+0	3.6 E-4	4 E-4	0.9
4,4'-DDT	0.0 E+0	9.9 E-6	1 E-5	0.0
Antimony	0.0 E+0	1.1 E-3	1 E-3	2.7
Arsenic	0.0 E+0	1.2 E-3	1 E-3	2.8
Cadmium (food)	0.0 E+0	8.6 E-4	9 E-4	2.1
Chromium	0.0 E+0	1.7 E-6	2 E-6	0.0
Dieldrin	1.2 E-7	4.2 E-4	4 E-4	1.0
Endosulfan sulfate	7.9 E-12	0.0 E+0	8 E-12	0.0
Endrin	2.1 E-8	6.9 E-5	7 E-5	0.2
gamma-Chlordane	0.0 E+0	1.0 E-3	1 E-3	2.5
Heptachlor	0.0 E+0	6.0 E-6	6 E-6	0.0
Hexachlorobenzene	0.0 E+0	1.4 E-5	1 E-5	0.0
Magnesium	0.0 E+0	4.7 E-3	5 E-3	11.5
Mercury	0.0 E+0	3.8 E-3	4 E-3	9.2
Methoxychlor	2.4 E-11	0.0 E+0	2 E-11	0.0
Nickel	0.0 E+0	4.7 E-5	5 E-5	0.1
Oxychlordane	0.0 E+0	5.1 E-3	5 E-3	12.5
PCBs (total)	0.0 E+0	1.4 E-3	1 E-3	3.4
Selenium	0.0 E+0	9.9 E-3	1 E-2	24.0
Silver	0.0 E+0	6.9 E-4	7 E-4	1.7
Thallium	0.0 E+0	9.9 E-3	1 E-2	24.0
trans-Nonachlor	0.0 E+0	1.2 E-4	1 E-4	0.3
Total by pathway	1 E-7	4 E-2		
% Contribution by pathway	0	100		
Scenario Total			**4 E-2**	

Table G-18
(Continued)

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult (Chronic)				
Reas. Max. Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	3.2 E-3	3 E-3	1.0
4,4'-DDE	0.0 E+0	2.5 E-3	3 E-3	0.8
4,4'-DDT	0.0 E+0	6.4 E-5	6 E-5	0.0
Antimony	0.0 E+0	1.4 E-2	1 E-2	4.4
Arsenic	0.0 E+0	7.7 E-3	8 E-3	2.4
Cadmium (food)	0.0 E+0	5.6 E-3	6 E-3	1.7
Chromium	0.0 E+0	1.6 E-5	2 E-5	0.0
Dieldrin	3.6 E-7	2.7 E-3	3 E-3	0.8
Endosulfan sulfate	2.8 E-11	0.0 E+0	3 E-11	0.0
Endrin	8.0 E-8	4.7 E-4	5 E-4	0.1
gamma-Chlordane	0.0 E+0	7.3 E-3	7 E-3	2.2
Heptachlor	0.0 E+0	4.7 E-5	5 E-5	0.0
Hexachlorobenzene	0.0 E+0	9.4 E-5	9 E-5	0.0
Magnesium	0.0 E+0	3.3 E-2	3 E-2	10.2
Mercury	0.0 E+0	2.5 E-2	3 E-2	7.8
Methoxychlor	7.8 E-11	0.0 E+0	8 E-11	0.0
Nickel	0.0 E+0	4.0 E-4	4 E-4	0.1
Oxychlordane	0.0 E+0	3.5 E-2	4 E-2	10.8
PCBs (total)	0.0 E+0	9.9 E-3	1 E-2	3.0
Selenium	0.0 E+0	6.9 E-2	7 E-2	21.1
Silver	0.0 E+0	4.7 E-3	5 E-3	1.5
Thallium	0.0 E+0	1.0 E-1	1 E-1	31.7
trans-Nonachlor	0.0 E+0	8.2 E-4	8 E-4	0.3
Total by pathway	4 E-7	3 E-1		
% Contribution by pathway	0	100		
Scenario Total			**3 E-1**	

Table G-19
Noncancer Hazard Index Estimates for the New COPCs at the Ditch

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult (Subchronic)				
Average Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	4.7 E-4	5 E-4	1.9
4,4'-DDE	0.0 E+0	3.6 E-4	4 E-4	1.4
4,4'-DDT	0.0 E+0	9.9 E-6	1 E-5	0.0
Antimony	0.0 E+0	1.1 E-3	1 E-3	4.2
Arsenic	0.0 E+0	1.2 E-3	1 E-3	4.5
Cadmium (food)	0.0 E+0	8.6 E-4	9 E-4	3.4
Chromium	0.0 E+0	1.7 E-6	2 E-6	0.0
Dieldrin	1.2 E-7	4.2 E-4	4 E-4	1.6
Endosulfan sulfate	7.9 E-12	0.0 E+0	8 E-12	0.0
Endrin	2.1 E-8	6.9 E-5	7 E-5	0.3
gamma-Chlordane	0.0 E+0	1.0 E-3	1 E-3	4.0
Heptachlor	0.0 E+0	6.0 E-6	6 E-6	0.0
Mercury	0.0 E+0	3.8 E-3	4 E-3	14.5
Methoxychlor	2.4 E-11	0.0 E+0	2 E-11	0.0
Nickel	0.0 E+0	4.7 E-5	5 E-5	0.2
Oxychlordane	0.0 E+0	5.1 E-3	5 E-3	19.7
Selenium	0.0 E+0	9.9 E-3	1 E-2	37.4
Silver	0.0 E+0	6.9 E-4	7 E-4	2.7
Thallium	0.0 E+0	9.9 E-4	1 E-3	3.7
trans-Nonachlor	0.0 E+0	1.2 E-4	1 E-4	0.5
Total by pathway	1 E-7	3 E-2		
% Contribution by pathway	0	100		
Scenario Total			**3 E-2**	

Table G-19
(Continued)

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult (Subchronic)				
Reas. Max. Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	3.2 E-3	3 E-3	1.7
4,4'-DDE	0.0 E+0	2.5 E-3	3 E-3	1.4
4,4'-DDT	0.0 E+0	6.4 E-5	6 E-5	0.0
Antimony	0.0 E+0	1.4 E-2	1 E-2	7.6
Arsenic	0.0 E+0	7.7 E-3	8 E-3	4.1
Cadmium (food)	0.0 E+0	5.6 E-3	6 E-3	3.0
Chromium	0.0 E+0	1.6 E-5	2 E-5	0.0
Dieldrin	3.6 E-7	2.7 E-3	3 E-3	1.5
Endosulfan sulfate	2.8 E-11	0.0 E+0	3 E-11	0.0
Endrin	8.0 E-8	4.7 E-4	5 E-4	0.2
gamma-Chlordane	0.0 E+0	7.3 E-3	7 E-3	3.9
Heptachlor	0.0 E+0	4.7 E-5	5 E-5	0.0
Mercury	0.0 E+0	2.5 E-2	3 E-2	13.6
Methoxychlor	7.8 E-11	0.0 E+0	8 E-11	0.0
Nickel	0.0 E+0	4.0 E-4	4 E-4	0.2
Oxychlordane	0.0 E+0	3.5 E-2	4 E-2	18.8
Selenium	0.0 E+0	6.9 E-2	7 E-2	35.7
Silver	0.0 E+0	4.7 E-3	5 E-3	2.6
Thallium	0.0 E+0	1.0 E-2	1 E-2	5.4
trans-Nonachlor	0.0 E+0	8.2 E-4	8 E-4	0.4
Total by pathway	4 E-7	2 E-1		
% Contribution by pathway	0	100		
Scenario Total			**2 E-1**	

Table G-20
Noncancer Hazard Index Estimates for the New COPCs at the Ditch

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Child (Chronic)				
Average Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	1.5 E-3	2 E-3	1.2
4,4'-DDE	0.0 E+0	1.1 E-3	1 E-3	0.9
4,4'-DDT	0.0 E+0	3.0 E-5	3 E-5	0.0
Antimony	0.0 E+0	3.3 E-3	3 E-3	2.7
Arsenic	0.0 E+0	3.6 E-3	4 E-3	2.9
Cadmium (food)	0.0 E+0	2.7 E-3	3 E-3	2.1
Chromium	0.0 E+0	5.1 E-6	5 E-6	0.0
Dieldrin	3.2 E-7	1.3 E-3	1 E-3	1.0
Endosulfan sulfate	2.1 E-11	0.0 E+0	2 E-11	0.0
Endrin	5.7 E-8	2.1 E-4	2 E-4	0.2
gamma-Chlordane	0.0 E+0	3.2 E-3	3 E-3	2.6
Heptachlor	0.0 E+0	1.8 E-5	2 E-5	0.0
Hexachlorobenzene	0.0 E+0	4.2 E-5	4 E-5	0.0
Magnesium	0.0 E+0	1.4 E-2	1 E-2	11.4
Mercury	0.0 E+0	1.2 E-2	1 E-2	9.3
Methoxychlor	6.4 E-11	0.0 E+0	6 E-11	0.0
Nickel	0.0 E+0	1.5 E-4	1 E-4	0.1
Oxychlordane	0.0 E+0	1.5 E-2	2 E-2	12.4
PCBs (total)	0.0 E+0	4.3 E-3	4 E-3	3.5
Selenium	0.0 E+0	3.0 E-2	3 E-2	23.8
Silver	0.0 E+0	2.1 E-3	2 E-3	1.7
Thallium	0.0 E+0	3.0 E-2	3 E-2	23.8
trans-Nonachlor	0.0 E+0	3.6 E-4	4 E-4	0.3
Total by pathway	4 E-7	1 E-1		
% Contribution by pathway	0	100		
Scenario Total			**1 E-1**	

Table G-20
(Continued)

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Child (Chronic)				
Reas. Max. Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	9.0 E-3	9 E-3	1.0
4,4'-DDE	0.0 E+0	7.3 E-3	7 E-3	0.8
4,4'-DDT	0.0 E+0	1.8 E-4	2 E-4	0.0
Antimony	0.0 E+0	4.0 E-2	4 E-2	4.4
Arsenic	0.0 E+0	2.1 E-2	2 E-2	2.4
Cadmium (food)	0.0 E+0	1.6 E-2	2 E-2	1.8
Chromium	0.0 E+0	4.3 E-5	4 E-5	0.0
Dieldrin	9.6 E-7	7.7 E-3	8 E-3	0.9
Endosulfan sulfate	7.5 E-11	0.0 E+0	8 E-11	0.0
Endrin	2.1 E-7	1.3 E-3	1 E-3	0.1
gamma-Chlordane	0.0 E+0	2.0 E-2	2 E-2	2.2
Heptachlor	0.0 E+0	1.3 E-4	1 E-4	0.0
Hexachlorobenzene	0.0 E+0	2.6 E-4	3 E-4	0.0
Magnesium	0.0 E+0	9.0 E-2	9 E-2	10.0
Mercury	0.0 E+0	7.3 E-2	7 E-2	8.1
Methoxychlor	2.1 E-10	0.0 E+0	2 E-10	0.0
Nickel	0.0 E+0	1.1 E-3	1 E-3	0.1
Oxychlordane	0.0 E+0	9.9 E-2	1 E-1	10.9
PCBs (total)	0.0 E+0	2.7 E-2	3 E-2	3.0
Selenium	0.0 E+0	1.9 E-1	2 E-1	20.9
Silver	0.0 E+0	1.3 E-2	1 E-2	1.5
Thallium	0.0 E+0	2.8 E-1	3 E-1	31.4
trans-Nonachlor	0.0 E+0	2.4 E-3	2 E-3	0.3
Total by pathway	1 E-6	9 E-1		
% Contribution by pathway	0	100		
Scenario Total			**9 E-1**	

Table G-21
Noncancer Hazard Index Estimates for the New COPCs at the Ditch

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Child (Subchronic)				
Average Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	1.5 E-3	2 E-3	1.9
4,4'-DDE	0.0 E+0	1.1 E-3	1 E-3	1.4
4,4'-DDT	0.0 E+0	3.0 E-5	3 E-5	0.0
Antimony	0.0 E+0	3.3 E-3	3 E-3	4.2
Arsenic	0.0 E+0	3.6 E-3	4 E-3	4.5
Cadmium (food)	0.0 E+0	2.7 E-3	3 E-3	3.4
Chromium	0.0 E+0	5.1 E-6	5 E-6	0.0
Dieldrin	3.2 E-7	1.3 E-3	1 E-3	1.6
Endosulfan sulfate	2.1 E-11	0.0 E+0	2 E-11	0.0
Endrin	5.7 E-8	2.1 E-4	2 E-4	0.3
gamma-Chlordane	0.0 E+0	3.2 E-3	3 E-3	4.0
Heptachlor	0.0 E+0	1.8 E-5	2 E-5	0.0
Mercury	0.0 E+0	1.2 E-2	1 E-2	14.5
Methoxychlor	6.4 E-11	0.0 E+0	6 E-11	0.0
Nickel	0.0 E+0	1.5 E-4	1 E-4	0.2
Oxychlordane	0.0 E+0	1.5 E-2	2 E-2	19.7
Selenium	0.0 E+0	3.0 E-2	3 E-2	37.4
Silver	0.0 E+0	2.1 E-3	2 E-3	2.7
Thallium	0.0 E+0	3.0 E-3	3 E-3	3.7
trans-Nonachlor	0.0 E+0	3.6 E-4	4 E-4	0.5
Total by pathway	4 E-7	8 E-2		
% Contribution by pathway	0	100		
Scenario Total			**8 E-2**	

Table G-21
(Continued)

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Child (Subchronic)				
Reas. Max. Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	9.0 E-3	9 E-3	1.7
4,4'-DDE	0.0 E+0	7.3 E-3	7 E-3	1.4
4,4'-DDT	0.0 E+0	1.8 E-4	2 E-4	0.0
Antimony	0.0 E+0	4.0 E-2	4 E-2	7.6
Arsenic	0.0 E+0	2.1 E-2	2 E-2	4.1
Cadmium (food)	0.0 E+0	1.6 E-2	2 E-2	3.0
Chromium	0.0 E+0	4.3 E-5	4 E-5	0.0
Dieldrin	9.6 E-7	7.7 E-3	8 E-3	1.5
Endosulfan sulfate	7.5 E-11	0.0 E+0	8 E-11	0.0
Endrin	2.1 E-7	1.3 E-3	1 E-3	0.2
gamma-Chlordane	0.0 E+0	2.0 E-2	2 E-2	3.9
Heptachlor	0.0 E+0	1.3 E-4	1 E-4	0.0
Mercury	0.0 E+0	7.3 E-2	7 E-2	13.6
Methoxychlor	2.1 E-10	0.0 E+0	2 E-10	0.0
Nickel	0.0 E+0	1.1 E-3	1 E-3	0.2
Oxychlordane	0.0 E+0	9.9 E-2	1 E-1	18.8
Selenium	0.0 E+0	1.9 E-1	2 E-1	35.7
Silver	0.0 E+0	1.3 E-2	1 E-2	2.6
Thallium	0.0 E+0	2.8 E-2	3 E-2	5.4
trans-Nonachlor	0.0 E+0	2.4 E-3	2 E-3	0.4
Total by pathway	1 E-6	5 E-1		
% Contribution by pathway	0	100		
Scenario Total			**5 E-1**	

Table G-22
Cancer Risk Estimates for the New COPCs
Lake Holloman

Analyte	Dermal Contact with Sludge	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult				
Average Cancer Risk				
4,4'-DDD	0.0 E+0	7.7 E-9	8 E-9	2.8
4,4'-DDE	0.0 E+0	6.0 E-8	6 E-8	21.7
4,4'-DDT	0.0 E+0	2.1 E-10	2 E-10	0.1
Beryllium	6.9 E-11	0.0 E+0	1 E-10	0.1
Dieldrin	0.0 E+0	4.3 E-8	4 E-8	15.5
gamma-Chlordane	0.0 E+0	1.0 E-8	1 E-8	3.7
Heptachlor	0.0 E+0	1.7 E-9	2 E-9	0.6
Hexachlorobenzene	0.0 E+0	2.3 E-9	2 E-9	0.8
Kepone	5.7 E-11	0.0 E+0	6 E-11	0.0
Oxychlordane	0.0 E+0	5.1 E-8	5 E-8	18.6
PCBs (total)	0.0 E+0	9.9 E-8	1 E-7	35.7
trans-Nonachlor	0.0 E+0	1.2 E-9	1 E-9	0.4
Total by pathway	1 E-10	3 E-7		
% Contribution by pathway	0	100		
Scenario Total			**3 E-7**	
Reas. Max. Cancer Risk				
4,4'-DDD	0.0 E+0	1.6 E-7	2 E-7	2.6
4,4'-DDE	0.0 E+0	1.5 E-6	1 E-6	22.9
4,4'-DDT	0.0 E+0	4.7 E-9	5 E-9	0.1
Beryllium	7.0 E-10	0.0 E+0	2 E-9	0.0
Dieldrin	0.0 E+0	9.4 E-7	9 E-7	14.8
gamma-Chlordane	0.0 E+0	2.4 E-7	2 E-7	3.8
Heptachlor	0.0 E+0	4.3 E-8	4 E-8	0.7
Hexachlorobenzene	0.0 E+0	5.1 E-8	5 E-8	0.8
Kepone	4.8 E-10	0.0 E+0	5 E-10	0.0
Oxychlordane	0.0 E+0	1.2 E-6	1 E-6	18.2
PCBs (total)	0.0 E+0	2.3 E-6	2 E-6	35.7
trans-Nonachlor	0.0 E+0	2.8 E-8	3 E-8	0.4
Total by pathway	1 E-9	6 E-6		
% Contribution by pathway	0	100		
Scenario Total			**6 E-6**	

Table G-23
Noncancer Hazard Index Estimates for the New COPCs at Lake Holloman

Analyte	Dermal Contact with Sludge	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult (Chronic)				
Average Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	4.7 E-4	5 E-4	1.1
4,4'-DDE	0.0 E+0	3.6 E-4	4 E-4	0.9
4,4'-DDT	0.0 E+0	9.9 E-6	1 E-4	0.0
Antimony	0.0 E+0	1.1 E-3	1 E-3	2.7
Arsenic	0.0 E+0	1.2 E-3	1 E-3	2.8
Cadmium (food)	0.0 E+0	8.6 E-4	9 E-4	2.1
Chromium	0.0 E+0	1.7 E-6	2 E-6	0.0
Dieldrin	0.0 E+0	4.2 E-4	4 E-4	1.0
Endrin	0.0 E+0	6.9 E-5	7 E-5	0.2
gamma-Chlordane	0.0 E+0	1.0 E-3	1 E-3	2.5
Heptachlor	0.0 E+0	6.0 E-6	6 E-6	0.0
Hexachlorobenzene	0.0 E+0	1.4 E-5	1 E-5	0.0
Kepone	6.1 E-6	0.0 E+0	6 E-6	0.0
Magnesium	0.0 E+0	4.7 E-3	5 E-3	11.5
Mercury	0.0 E+0	3.8 E-3	4 E-3	9.2
Nickel	0.0 E+0	4.7 E-5	5 E-5	0.1
Oxychlordane	0.0 E+0	5.1 E-3	5 E-3	12.5
PCBs (total)	0.0 E+0	1.4 E-3	1 E-3	3.4
Selenium	0.0 E+0	9.9 E-3	1 E-2	24.0
Silver	0.0 E+0	6.9 E-4	7 E-4	1.7
Thallium	2.5 E-5	9.9 E-3	1 E-2	24.0
trans-Nonachlor	0.0 E+0	1.2 E-4	1 E-4	0.3
Total by pathway	3 E-5	4 E-2		
% Contribution by pathway	0	100		
Scenario Total			**4 E-2**	

Table G-23
(Continued)

Analyte	Dermal Contact with Sludge	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult (Chronic)				
Reas. Max. Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	3.2 E-3	3 E-3	9.7
4,4'-DDE	0.0 E+0	2.5 E-3	3 E-3	7.7
4,4'-DDT	0.0 E+0	6.4 E-5	5 E-4	1.4
Antimony	0.0 E+0	1.4 E-2	1 E-2	42.9
Arsenic	0.0 E+0	7.7 E-3	8 E-3	23.5
Cadmium (food)	0.0 E+0	5.6 E-3	6 E-3	1.7
Chromium	0.0 E+0	1.6 E-5	2 E-5	0.0
Dieldrin	0.0 E+0	2.7 E-3	3 E-3	0.8
Endrin	0.0 E+0	4.7 E-4	5 E-4	0.1
gamma-Chlordane	0.0 E+0	7.3 E-3	7 E-3	2.2
Heptachlor	0.0 E+0	4.7 E-5	5 E-5	0.0
Hexachlorobenzene	0.0 E+0	9.4 E-5	9 E-5	0.0
Kepone	1.6 E-5	0.0 E+0	2 E-5	0.0
Magnesium	0.0 E+0	3.3 E-2	3 E-2	10.2
Mercury	0.0 E+0	2.5 E-2	3 E-2	7.8
Nickel	0.0 E+0	4.0 E-4	4 E-4	0.1
Oxychlordane	0.0 E+0	3.5 E-2	4 E-2	10.8
PCBs (total)	0.0 E+0	9.9 E-3	1 E-2	3.0
Selenium	0.0 E+0	6.9 E-2	7 E-2	21.1
Silver	0.0 E+0	4.7 E-3	5 E-3	1.5
Thallium	6.9 E-5	1.0 E-1	1 E-1	31.7
trans-Nonachlor	0.0 E+0	8.2 E-4	8 E-4	0.3
Total by pathway	9 E-5	3 E-1		
% Contribution by pathway	0	100		
Scenario Total			**3 E-1**	

Table G-24
Noncancer Hazard Index Estimates for the New COPCs at Lake Holloman

Analyte	Dermal Contact with Sludge	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult (Subchronic)				
Average Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	4.7 E-4	5 E-4	1.8
4,4'-DDE	0.0 E+0	3.6 E-4	4 E-4	1.4
4,4'-DDT	0.0 E+0	9.9 E-6	1 E-4	0.0
Antimony	0.0 E+0	1.1 E-3	1 E-3	4.3
Arsenic	0.0 E+0	1.2 E-3	1 E-3	4.4
Cadmium (food)	0.0 E+0	8.6 E-4	9 E-4	3.3
Chromium	0.0 E+0	1.7 E-6	2 E-6	0.0
Dieldrin	0.0 E+0	4.2 E-4	4 E-4	1.6
Endrin	0.0 E+0	6.9 E-5	7 E-5	0.3
gamma-Chlordane	0.0 E+0	1.0 E-3	1 E-3	3.9
Heptachlor	0.0 E+0	6.0 E-6	6 E-6	0.0
Mercury	0.0 E+0	3.8 E-3	4 E-3	14.4
Nickel	0.0 E+0	4.7 E-5	5 E-5	0.2
Oxychlordane	0.0 E+0	5.1 E-3	5 E-3	19.7
Selenium	0.0 E+0	9.9 E-3	1 E-2	37.8
Silver	0.0 E+0	6.9 E-4	7 E-4	2.6
Thallium	2.5 E-6	9.9 E-4	1 E-3	3.8
trans-Nonachlor	0.0 E+0	1.2 E-4	1 E-4	0.5
Total by pathway	3 E-6	3 E-2		
% Contribution by pathway	0	100		
Scenario Total			**3 E-2**	

Table G-24
(Continued)

Analyte	Dermal Contact with Sludge	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult (Subchronic)				
Reas. Max. Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	3.2 E-3	3 E-3	1.7
4,4'-DDE	0.0 E+0	2.5 E-3	3 E-3	1.3
4,4'-DDT	0.0 E+0	6.4 E-5	5 E-4	0.0
Antimony	0.0 E+0	1.4 E-2	1 E-2	7.5
Arsenic	0.0 E+0	7.7 E-3	8 E-3	4.1
Cadmium (food)	0.0 E+0	5.6 E-3	6 E-3	2.9
Chromium	0.0 E+0	1.6 E-5	2 E-5	0.0
Dieldrin	0.0 E+0	2.7 E-3	3 E-3	1.5
Endrin	0.0 E+0	4.7 E-4	5 E-4	0.2
gamma-Chlordane	0.0 E+0	7.3 E-3	7 E-3	3.9
Heptachlor	0.0 E+0	4.7 E-5	5 E-5	0.0
Mercury	0.0 E+0	2.5 E-2	3 E-2	13.4
Nickel	0.0 E+0	4.0 E-4	4 E-4	0.2
Oxychlordane	0.0 E+0	3.5 E-2	4 E-2	18.6
Selenium	0.0 E+0	6.9 E-2	7 E-2	36.3
Silver	0.0 E+0	4.7 E-3	5 E-3	2.5
Thallium	6.9 E-6	1.0 E-2	1 E-2	5.4
trans-Nonachlor	0.0 E+0	8.2 E-4	8 E-4	0.4
Total by pathway	7 E-6	2 E-1		
% Contribution by pathway	0	100		
Scenario Total			**2 E-1**	

Table G-25
Noncancer Hazard Index Estimates for the New COPCs at Lake Holloman

Analyte	Dermal Contact with Sludge	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Child (Chronic)				
Average Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	1.5 E-3	2 E-3	1.2
4,4'-DDE	0.0 E+0	1.1 E-3	1 E-3	0.9
4,4'-DDT	0.0 E+0	3.0 E-5	3 E-4	0.0
Antimony	0.0 E+0	3.3 E-3	3 E-3	2.7
Arsenic	0.0 E+0	3.6 E-3	4 E-3	2.9
Cadmium (food)	0.0 E+0	2.7 E-3	3 E-3	2.1
Chromium	0.0 E+0	5.1 E-6	5 E-6	0.0
Dieldrin	0.0 E+0	1.3 E-3	1 E-3	1.0
Endrin	0.0 E+0	2.1 E-4	2 E-4	0.2
gamma-Chlordane	0.0 E+0	3.2 E-3	3 E-3	2.6
Heptachlor	0.0 E+0	1.8 E-5	2 E-5	0.0
Hexachlorobenzene	0.0 E+0	4.2 E-5	4 E-5	0.0
Kepone	1.6 E-5	0.0 E+0	2 E-5	0.0
Magnesium	0.0 E+0	1.4 E-2	1 E-2	11.4
Mercury	0.0 E+0	1.2 E-2	1 E-2	9.3
Nickel	0.0 E+0	1.5 E-4	1 E-4	0.1
Oxychlordane	0.0 E+0	1.5 E-2	2 E-2	12.4
PCBs (total)	0.0 E+0	4.3 E-3	4 E-3	3.5
Selenium	0.0 E+0	3.0 E-2	3 E-2	23.8
Silver	0.0 E+0	2.1 E-3	2 E-3	1.7
Thallium	6.7 E-5	3.0 E-2	3 E-2	23.8
trans-Nonachlor	0.0 E+0	3.6 E-4	4 E-4	0.3
Total by pathway	8 E-5	1 E-1		
% Contribution by pathway	0	100		
Scenario Total			**1 E-1**	

Table G-25
(Continued)

Analyte	Dermal Contact with Sludge	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Child (Chronic)				
Reas. Max. Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	9.0 E-3	9 E-3	1.0
4,4'-DDE	0.0 E+0	7.3 E-3	7 E-3	0.8
4,4'-DDT	0.0 E+0	1.8 E-4	1 E-3	0.0
Antimony	0.0 E+0	4.0 E-2	4 E-2	4.4
Arsenic	0.0 E+0	2.1 E-2	2 E-2	2.4
Cadmium (food)	0.0 E+0	1.6 E-2	2 E-2	1.8
Chromium	0.0 E+0	4.3 E-5	4 E-5	0.0
Dieldrin	0.0 E+0	7.7 E-3	8 E-3	0.9
Endrin	0.0 E+0	1.3 E-3	1 E-3	0.1
gamma-Chlordane	0.0 E+0	2.0 E-2	2 E-2	2.2
Heptachlor	0.0 E+0	1.3 E-4	1 E-4	0.0
Hexachlorobenzene	0.0 E+0	2.6 E-4	3 E-4	0.0
Kepone	4.1 E-5	0.0 E+0	4 E-5	0.0
Magnesium	0.0 E+0	9.0 E-2	9 E-2	10.0
Mercury	0.0 E+0	7.3 E-2	7 E-2	8.1
Nickel	0.0 E+0	1.1 E-3	1 E-3	0.1
Oxychlordane	0.0 E+0	9.9 E-2	1 E-1	10.9
PCBs (total)	0.0 E+0	2.7 E-2	3 E-2	3.0
Selenium	0.0 E+0	1.9 E-1	2 E-1	20.9
Silver	0.0 E+0	1.3 E-2	1 E-2	1.5
Thallium	1.8 E-4	2.8 E-1	3 E-1	31.4
trans-Nonachlor	0.0 E+0	2.4 E-3	2 E-3	0.3
Total by pathway	2 E-4	9 E-1		
% Contribution by pathway	0	100		
Scenario Total			**9 E-1**	

Table G-26
Noncancer Hazard Index Estimates for the New COPCs at Lake Holloman

Analyte	Dermal Contact with Sludge	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Child (Subchronic)				
Average Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	1.5 E-3	2 E-3	1.9
4,4'-DDE	0.0 E+0	1.1 E-3	1 E-3	1.4
4,4'-DDT	0.0 E+0	3.0 E-5	3 E-4	0.0
Antimony	0.0 E+0	3.3 E-3	3 E-3	4.2
Arsenic	0.0 E+0	3.6 E-3	4 E-3	4.5
Cadmium (food)	0.0 E+0	2.7 E-3	3 E-3	3.4
Chromium	0.0 E+0	5.1 E-6	5 E-6	0.0
Dieldrin	0.0 E+0	1.3 E-3	1 E-3	1.6
Endrin	0.0 E+0	2.1 E-4	2 E-4	0.3
gamma-Chlordane	0.0 E+0	3.2 E-3	3 E-3	4.0
Heptachlor	0.0 E+0	1.8 E-5	2 E-5	0.0
Mercury	0.0 E+0	1.2 E-2	1 E-2	14.6
Nickel	0.0 E+0	1.5 E-4	1 E-4	0.2
Oxychlordane	0.0 E+0	1.5 E-2	2 E-2	19.5
Selenium	0.0 E+0	3.0 E-2	3 E-2	37.4
Silver	0.0 E+0	2.1 E-3	2 E-3	2.7
Thallium	6.7 E-6	3.0 E-3	3 E-3	3.7
trans-Nonachlor	0.0 E+0	3.6 E-4	4 E-4	0.5
Total by pathway	7 E-6	8 E-2		
% Contribution by pathway	0	100		
Scenario Total			**8 E-2**	

Table G-26
(Continued)

Analyte	Dermal Contact with Sludge	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Child (Subchronic)				
Reas. Max. Noncancer Hazard Index Summary				
4,4'-DDD	0.0 E+0	9.0 E-3	9 E-3	1.7
4,4'-DDE	0.0 E+0	7.3 E-3	7 E-3	1.4
4,4'-DDT	0.0 E+0	1.8 E-4	1 E-3	0.0
Antimony	0.0 E+0	4.0 E-2	4 E-2	7.5
Arsenic	0.0 E+0	2.1 E-2	2 E-2	4.1
Cadmium (food)	0.0 E+0	1.6 E-2	2 E-2	3.0
Chromium	0.0 E+0	4.3 E-5	4 E-5	0.0
Dieldrin	0.0 E+0	7.7 E-3	8 E-3	1.5
Endrin	0.0 E+0	1.3 E-3	1 E-3	0.2
gamma-Chlordane	0.0 E+0	2.0 E-2	2 E-2	3.8
Heptachlor	0.0 E+0	1.3 E-4	1 E-4	0.0
Mercury	0.0 E+0	7.3 E-2	7 E-2	13.8
Nickel	0.0 E+0	1.1 E-3	1 E-3	0.2
Oxychlordane	0.0 E+0	9.9 E-2	1 E-1	18.7
Selenium	0.0 E+0	1.9 E-1	2 E-1	35.7
Silver	0.0 E+0	1.3 E-2	1 E-2	2.5
Thallium	1.8 E-5	2.8 E-2	3 E-2	5.4
trans-Nonachlor	0.0 E+0	2.4 E-3	2 E-3	0.4
Total by pathway	2 E-5	5 E-1		
% Contribution by pathway	0	100		
Scenario Total			**5 E-1**	

Table G-27
Cancer Risk Estimates for the New COPCs at Lake Stinky

Analyte	Dermal Contact with Soil	Ingestion of Water Fowl	Total	Percent Contrib
Current/Future Off-Site Recreational - Adult				
Average Cancer Risk				
4,4'-DDD	2.2 E-14	7.7 E-9	9 E-9	3.1
4,4'-DDE	0.0 E+0	6.0 E-8	6 E-8	21.6
4,4'-DDT	1.4 E-12	2.1 E-10	2 E-10	0.1
Dieldrin	3.5 E-11	4.3 E-8	4 E-8	15.6
gamma-Chlordane	0.0 E+0	1.1 E-8	1 E-8	3.9
Heptachlor	5.4 E-12	1.7 E-9	2 E-9	0.6
Hexachlorobenzene	0.0 E+0	2.3 E-9	2 E-9	0.8
Oxychlordane	0.0 E+0	5.1 E-8	5 E-8	18.5
PCBs (total)	0.0 E+0	9.9 E-8	1 E-7	35.4
trans-Nonachlor	0.0 E+0	1.2 E-9	1 E-9	0.4
Total by pathway	4 E-11	3 E-7		
% Contribution by pathway	0	100		
Scenario Total			**3 E-7**	
Reas. Max. Cancer Risk				
4,4'-DDD	3.1 E-13	1.6 E-7	2 E-7	2.7
4,4'-DDE	0.0 E+0	1.5 E-6	1 E-6	22.9
4,4'-DDT	1.6 E-11	4.7 E-9	5 E-9	0.1
Dieldrin	5.0 E-10	9.4 E-7	9 E-7	14.9
gamma-Chlordane	0.0 E+0	2.4 E-7	2 E-7	3.8
Heptachlor	7.4 E-11	4.3 E-8	4 E-8	0.7
Hexachlorobenzene	0.0 E+0	5.1 E-8	5 E-8	0.8
Oxychlordane	0.0 E+0	1.2 E-6	1 E-6	18.2
PCBs (total)	0.0 E+0	2.3 E-6	2 E-6	35.6
trans-Nonachlor	0.0 E+0	2.8 E-8	3 E-8	0.4
Total by pathway	6 E-10	6 E-6		
% Contribution by pathway	0	100		
Scenario Total			**6 E-6**	

Table G-28
Noncancer Hazard Index Estimates for the New COPCs at Lake Stinky

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult (Chronic)				
Average Noncancer Hazard Index Summary				
4,4'-DDD	1.4 E-9	4.7 E-4	5 E-4	1.3
4,4'-DDE	0.0 E+0	3.6 E-4	4 E-4	0.9
4,4'-DDT	6.2 E-8	9.9 E-6	1 E-5	0.0
Dieldrin	2.6 E-7	4.2 E-4	4 E-4	1.0
Endrin	0.0 E+0	6.9 E-5	7 E-5	0.2
gamma-Chlordane	0.0 E+0	1.0 E-3	1 E-3	2.5
Heptachlor	9.6 E-9	6.0 E-6	6 E-6	0.0
Hexachlorobenzene	0.0 E+0	1.4 E-5	1 E-5	0.0
Oxychlordane	0.0 E+0	5.1 E-3	5 E-3	12.5
PCBs (total)	0.0 E+0	1.4 E-3	1 E-3	3.4
Nickel	0.0 E+0	4.7 E-5	5 E-5	0.1
Silver	0.0 E+0	6.9 E-4	7 E-4	1.7
Antimony	0.0 E+0	1.1 E-3	1 E-3	2.7
Arsenic	0.0 E+0	1.2 E-3	1 E-3	2.8
Cadmium (food)	0.0 E+0	8.6 E-4	9 E-4	2.1
Chromium	0.0 E+0	1.7 E-6	2 E-6	0.0
Magnesium	0.0 E+0	4.7 E-3	5 E-3	11.5
Mercury	0.0 E+0	3.8 E-3	4 E-3	9.2
Selenium	0.0 E+0	9.9 E-3	1 E-2	24.0
Thallium	0.0 E+0	9.9 E-3	1 E-2	24.0
Total by pathway	3 E-7	4 E-2		
% Contribution by pathway	0	100		
Scenario Total			**4 E-2**	

Table G-28
(Continued)

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult (Chronic)				
Reas. Max. Noncancer Hazard Index Summary				
4,4'-DDD	6.0 E-9	3.2 E-3	3 E-3	1.0
4,4'-DDE	0.0 E+0	2.5 E-3	3 E-3	0.8
4,4'-DDT	2.1 E-7	6.4 E-5	6 E-5	0.0
Dieldrin	1.1 E-6	2.7 E-3	3 E-3	0.8
Endrin	0.0 E+0	4.7 E-4	5 E-4	0.1
gamma-Chlordane	0.0 E+0	7.3 E-3	7 E-3	2.3
Heptachlor	4.0 E-8	4.7 E-5	5 E-5	0.0
Hexachlorobenzene	0.0 E+0	9.4 E-5	9 E-5	0.0
Oxychlordane	0.0 E+0	3.5 E-2	4 E-2	10.9
PCBs (total)	0.0 E+0	9.9 E-3	1 E-2	3.0
Nickel	0.0 E+0	4.0 E-4	4 E-4	0.1
Silver	0.0 E+0	4.7 E-3	5 E-3	1.5
Antimony	0.0 E+0	1.4 E-2	1 E-2	4.4
Arsenic	0.0 E+0	7.7 E-3	8 E-3	2.4
Cadmium (food)	0.0 E+0	5.6 E-3	6 E-3	1.7
Chromium	0.0 E+0	1.6 E-5	2 E-5	0.0
Magnesium	0.0 E+0	3.3 E-2	3 E-2	10.2
Mercury	0.0 E+0	2.5 E-2	3 E-2	7.8
Selenium	0.0 E+0	6.9 E-2	7 E-2	21.2
Thallium	0.0 E+0	1.0 E-1	1 E-1	31.8
Total by pathway	1 E-6	3 E-1		
% Contribution by pathway	0	100		
Scenario Total			**3 E-1**	

Table G-29
Noncancer Hazard Index Estimates for the New COPCs at Lake Stinky

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult (Subchronic)				
Average Noncancer Hazard Index Summary				
4,4'-DDD	1.4 E-9	4.7 E-4	5 E-4	1.8
4,4'-DDE	0.0 E+0	3.6 E-4	4 E-4	1.4
4,4'-DDT	6.2 E-8	9.9 E-6	1 E-5	0.0
Dieldrin	2.6 E-7	4.2 E-4	4 E-4	1.6
Endrin	0.0 E+0	6.9 E-5	7 E-5	0.3
gamma-Chlordane	0.0 E+0	1.0 E-3	1 E-3	4.0
Heptachlor	9.6 E-9	6.0 E-6	6 E-6	0.0
Oxychlordane	0.0 E+0	5.1 E-3	5 E-3	19.8
Nickel	0.0 E+0	4.7 E-5	5 E-5	0.2
Silver	0.0 E+0	6.9 E-4	7 E-4	2.6
Antimony	0.0 E+0	1.1 E-3	1 E-3	4.3
Arsenic	0.0 E+0	1.2 E-3	1 E-3	4.5
Cadmium (food)	0.0 E+0	8.6 E-4	9 E-4	3.3
Chromium	0.0 E+0	1.7 E-6	2 E-6	0.0
Mercury	0.0 E+0	3.8 E-3	4 E-3	14.5
Selenium	0.0 E+0	9.9 E-3	1 E-2	37.9
Thallium	0.0 E+0	9.9 E-4	1 E-3	3.8
Total by pathway	3 E-7	3 E-2		
% Contribution by pathway	0	100		
Scenario Total			**3 E-2**	

Table G-29
(Continued)

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Adult (Subchronic)				
Reas. Max. Noncancer Hazard Index Summary				
4,4'-DDD	6.0 E-9	3.2 E-3	3 E-3	1.7
4,4'-DDE	0.0 E+0	2.5 E-3	3 E-3	1.3
4,4'-DDT	2.1 E-7	6.4 E-5	6 E-5	0.0
Dieldrin	1.1 E-6	2.7 E-3	3 E-3	1.5
Endrin	0.0 E+0	4.7 E-4	5 E-4	0.3
gamma-Chlordane	0.0 E+0	7.3 E-3	7 E-3	3.9
Heptachlor	4.0 E-8	4.7 E-5	5 E-5	0.0
Oxychlordane	0.0 E+0	3.5 E-2	4 E-2	18.7
Nickel	0.0 E+0	4.0 E-4	4 E-4	0.2
Silver	0.0 E+0	4.7 E-3	5 E-3	2.5
Antimony	0.0 E+0	1.4 E-2	1 E-2	7.5
Arsenic	0.0 E+0	7.7 E-3	8 E-3	4.1
Cadmium (food)	0.0 E+0	5.6 E-3	6 E-3	3.0
Chromium	0.0 E+0	1.6 E-5	2 E-5	0.0
Mercury	0.0 E+0	2.5 E-2	3 E-2	13.4
Selenium	0.0 E+0	6.9 E-2	7 E-2	36.4
Thallium	0.0 E+0	1.0 E-2	1 E-2	5.5
Total by pathway	1 E-6	2 E-1		
% Contribution by pathway	0	100		
Scenario Total			**2 E-1**	

Table G-30
Noncancer Hazard Index Estimates for the New COPCs at Lake Stinky

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational -Child (Chronic)				
Average Noncancer Hazard Index Summary				
4,4'-DDD	3.7 E-9	1.5 E-3	2 E-3	1.2
4,4'-DDE	0.0 E+0	1.1 E-3	1 E-3	0.9
4,4'-DDT	1.6 E-7	3.0 E-5	3 E-5	0.0
Dieldrin	7.0 E-7	1.3 E-3	1 E-3	1.0
Endrin	0.0 E+0	2.1 E-4	2 E-4	0.2
gamma-Chlordane	0.0 E+0	3.2 E-3	3 E-3	2.6
Heptachlor	2.5 E-8	1.8 E-5	2 E-5	0.0
Hexachlorobenzene	0.0 E+0	4.2 E-5	4 E-5	0.0
Oxychlordane	0.0 E+0	1.5 E-2	2 E-2	12.5
PCBs (total)	0.0 E+0	4.3 E-3	4 E-3	3.5
Nickel	0.0 E+0	1.5 E-4	1 E-4	0.1
Silver	0.0 E+0	2.1 E-3	2 E-3	1.7
Antimony	0.0 E+0	3.3 E-3	3 E-3	2.7
Arsenic	0.0 E+0	3.6 E-3	4 E-3	2.9
Cadmium (food)	0.0 E+0	2.7 E-3	3 E-3	2.1
Chromium	0.0 E+0	5.1 E-6	5 E-6	0.0
Magnesium	0.0 E+0	1.4 E-2	1 E-2	11.4
Mercury	0.0 E+0	1.2 E-2	1 E-2	9.3
Selenium	0.0 E+0	3.0 E-2	3 E-2	23.9
Thallium	0.0 E+0	3.0 E-2	3 E-2	23.9
Total by pathway	9 E-7	1 E-1		
% Contribution by pathway	0	100		
Scenario Total			**1 E-1**	

Table G-30
(Continued)

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Child (Chronic)				
Reas. Max. Noncancer Hazard Index Summary				
4,4'-DDD	1.6 E-8	9.0 E-3	9 E-3	1.0
4,4'-DDE	0.0 E+0	7.3 E-3	7 E-3	0.8
4,4'-DDT	5.7 E-7	1.8 E-4	2 E-4	0.0
Dieldrin	3.0 E-6	7.7 E-3	8 E-3	0.9
Endrin	0.0 E+0	1.3 E-3	1 E-3	0.1
gamma-Chlordane	0.0 E+0	2.0 E-2	2 E-2	2.2
Heptachlor	1.0 E-7	1.3 E-4	1 E-4	0.0
Hexachlorobenzene	0.0 E+0	2.6 E-4	3 E-4	0.0
Oxychlordane	0.0 E+0	9.9 E-2	1 E-1	11.0
PCBs (total)	0.0 E+0	2.7 E-2	3 E-2	3.1
Nickel	0.0 E+0	1.1 E-3	1 E-3	0.1
Silver	0.0 E+0	1.3 E-2	1 E-2	1.5
Antimony	0.0 E+0	4.0 E-2	4 E-2	4.4
Arsenic	0.0 E+0	2.1 E-2	2 E-2	2.4
Cadmium (food)	0.0 E+0	1.6 E-2	2 E-2	1.8
Chromium	0.0 E+0	4.3 E-5	4 E-5	0.0
Magnesium	0.0 E+0	9.0 E-2	9 E-2	10.0
Mercury	0.0 E+0	7.3 E-2	7 E-2	8.1
Selenium	0.0 E+0	1.9 E-1	2 E-1	21.0
Thallium	0.0 E+0	2.8 E-1	3 E-1	31.5
Total by pathway	4 E-6	9 E-1		
% Contribution by pathway	0	100		
Scenario Total			**9 E-1**	

Table G-31
Noncancer Hazard Index Estimates for the New COPCs at Lake Stinky

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Child (Subchronic)				
Average Noncancer Hazard Index Summary				
4,4'-DDD	3.7 E-9	1.5 E-3	2 E-3	1.9
4,4'-DDE	0.0 E+0	1.1 E-3	1 E-3	1.4
4,4'-DDT	1.6 E-7	3.0 E-5	3 E-5	0.0
Dieldrin	7.0 E-7	1.3 E-3	1 E-3	1.6
Endrin	0.0 E+0	2.1 E-4	2 E-4	0.3
gamma-Chlordane	0.0 E+0	3.2 E-3	3 E-3	4.0
Heptachlor	2.5 E-8	1.8 E-5	2 E-5	0.0
Oxychlordane	0.0 E+0	1.5 E-2	2 E-2	19.6
Nickel	0.0 E+0	1.5 E-4	1 E-4	0.2
Silver	0.0 E+0	2.1 E-3	2 E-3	2.7
Antimony	0.0 E+0	3.3 E-3	3 E-3	4.2
Arsenic	0.0 E+0	3.6 E-3	4 E-3	4.5
Cadmium (food)	0.0 E+0	2.7 E-3	3 E-3	3.4
Chromium	0.0 E+0	5.1 E-6	5 E-6	0.0
Mercury	0.0 E+0	1.2 E-2	1 E-2	14.7
Selenium	0.0 E+0	3.0 E-2	3 E-2	37.6
Thallium	0.0 E+0	3.0 E-3	3 E-3	3.8
Total by pathway	9 E-7	8 E-2		
% Contribution by pathway	0	100		
Scenario Total			**8 E-2**	

Table G-31
(Continued)

Analyte	Dermal Contact with Soil	Ingestion of Waterfowl	Total	Percent Contribution
Current/Future Off-Site Recreational - Child (Subchronic)				
Reas. Max. Noncancer Hazard Index Summary				
4,4'-DDD	1.6 E-8	9.0 E-3	9 E-3	1.7
4,4'-DDE	0.0 E+0	7.3 E-3	7 E-3	1.4
4,4'-DDT	5.7 E-7	1.8 E-4	2 E-4	0.0
Dieldrin	3.0 E-6	7.7 E-3	8 E-3	1.5
Endrin	0.0 E+0	1.3 E-3	1 E-3	0.2
gamma-Chlordane	0.0 E+0	2.0 E-2	2 E-2	3.8
Heptachlor	1.0 E-7	1.3 E-4	1 E-4	0.0
Oxychlordane	0.0 E+0	9.9 E-2	1 E-1	18.8
Nickel	0.0 E+0	1.1 E-3	1 E-3	0.2
Silver	0.0 E+0	1.3 E-2	1 E-2	2.5
Antimony	0.0 E+0	4.0 E-2	4 E-2	7.6
Arsenic	0.0 E+0	2.1 E-2	2 E-2	4.1
Cadmium (food)	0.0 E+0	1.6 E-2	2 E-2	3.0
Chromium	0.0 E+0	4.3 E-5	4 E-5	0.0
Mercury	0.0 E+0	7.3 E-2	7 E-2	13.9
Selenium	0.0 E+0	1.9 E-1	2 E-1	35.9
Thallium	0.0 E+0	2.8 E-2	3 E-2	5.4
Total by pathway	4 E-6	5 E-1		
% Contribution by pathway	0	100		
Scenario Total			**5 E-1**	

Table G-32
Concentrations in Food Sources at Pond G

Chemical	Conc. in Surf Water (mg/L)	Conc. in Sludge (mg/kg)	Concentration in food items (mg/kg)		
			Benthos	Insect	Fish
Aldrin	ND	ND	7.7E-06	5.5E-04	2.2E-04
alpha BHC	ND	0.020088	1.9E-04	1.5E-02	4.8E-04
beta BHC	ND	ND	ND	6.3E-04	1.5E-04
delta BHC	ND	0.000373	9.2E-04	9.3E-04	1.6E-03
gamma BHC	ND	0.000104	1.5E-03	1.7E-03	1.2E-03
alpha Chlordane	ND	ND	3.5E-04	1.3E-04	8.7E-04
gamma chlordane	ND	ND	3.5E-05	7.2E-03	1.5E-03
2,4'-DDD	-	-	2.8E-04	1.2E-03	6.9E-04
4,4'-DDD	ND	0.45469	4.9E-03	1.1E-02	3.2E-02
4,4'-DDE	ND	0.098802	3.7E-04	2.2E-02	1.4E-02
2,4'-DDT	-	-	ND	4.6E-05	1.1E-03
4,4'-DDT	ND	0.039901	5.8E-04	2.3E-04	2.3E-03
Dieldrin	ND	0.000374	7.1E-04	1.8E-04	1.7E-03
Endrin	ND	ND	3.1E-04	5.2E-04	1.5E-03
HCB	-	-	ND	1.3E-03	5.7E-04
Heptachlor	ND	ND	1.9E-04	1.4E-04	1.2E-03
Heptachlor epoxide	ND	0.000329	ND	ND	7.0E-05
Mirex	-	ND	ND	2.3E-05	1.3E-04
cis Nonachlor	-	-	ND	5.9E-04	8.8E-04
trans Nonachlor	-	-	2.2E-04	ND	2.0E-03
OCDD	-	-	6.0E-06	3.0E-04	ND
OCDF	-	-	3.7E-06	ND	ND
Oxychlordane	-	-	1.3E-04	5.2E-03	8.3E-04
Total HpCDDs	-	-	1.7E-06	1.3E-04	ND
Total Hx CDDs	-	-	7.0E-07	4.7E-04	ND
Total HxCDFs	-	-	3.5E-06	2.9E-04	ND
Total PCBs	-	-	4.4E-02	5.0E-02	2.5E-01
Total PeCDFs	-	-	ND	5.3E-02	9.4E-06
Barium	0.038431	93.49675	9.7E-01	8.3E+00	9.5E+00
Cadmium	ND	ND	1.8E-01	2.4E-02	1.2E-01
Chromium	ND	11.76778	ND	1.3E+00	1.7E-01
Lead	0.007088	44.96215	1.2E-01	4.4E-01	1.4E-01
Mercury	ND	0.180568	5.5E-02	1.7E-02	4.2E-02
Nickel	ND	8.331341	ND	2.9E-01	ND
Silver	ND	3.213615	4.6E-01	3.2E-01	2.4E-01

Note: Constituents not detected in any sample are not listed.

ND = Not detected in this medium - = Not analyzed in this medium

Table G-33
Concentrations in Food Sources at the Ditch

Chemical	Conc. in Surf Water (mg/L)	Conc. in Soil (mg/kg)	Concentration in food items (mg/kg)		
			Benthos	Insect	Fish
Aldrin	ND	2.27E-03	8.4E-04	5.5E-04	ND
alpha BHC	0.0000078	ND	ND	1.5E-02	ND
beta BHC	ND	ND	7.4E-04	6.3E-04	4.9E-04
delta BHC	ND	2.56E-01	1.6E-04	9.3E-04	5.1E-04
gamma BHC	ND	2.55E-03	7.3E-04	1.7E-03	2.2E-03
bis(2-Ethylhexyl)phthalate	-	ND	2.9E+00	ND	ND
Chlordane	ND	1.26E-01	ND	9.2E-03	ND
alpha Chlordane	ND	ND	2.5E-03	1.3E-04	1.6E-02
gamma chlordane	ND	ND	3.2E-03	7.2E-03	5.8E-03
2,4'-DDD	-	-	1.5E-03	1.2E-03	4.5E-02
4,4'-DDD	ND	9.94E-02	3.6E-02	1.1E-02	2.5E+00
2,4'-DDE	-	-	7.7E-05	1.7E-02	4.8E-03
4,4'-DDE	ND	2.07E-02	1.6E-02	2.2E-02	7.5E-01
2,4'-DDT	-	-	ND	4.6E-05	4.9E-03
4,4'-DDT	ND	3.56E-02	2.5E-04	2.3E-04	1.3E-01
Dieldrin	1.10E-05	7.24E-04	5.5E-03	1.8E-04	5.4E-03
Endrin	ND	1.89E-03	ND	5.2E-04	6.2E-04
HCB	-	-	3.4E-04	1.3E-03	8.2E-04
Heptachlor	ND	ND	1.4E-04	1.4E-04	1.5E-04
cis Nonachlor	-	-	2.6E-03	5.9E-04	2.7E-02
trans Nonachlor	-	-	3.4E-03	1.3E-04	1.0E-01
OCDD	-	-	1.7E-04	3.0E-04	7.0E-02
OCDF	-	-	1.4E-05	ND	ND
Oxychlordane	-	-	4.7E-03	5.2E-03	2.1E-02
Total HpCDDs	-	-	2.4E-05	1.3E-04	ND
Total HxCDFs	-	-	3.1E-06	2.9E-04	4.2E-04
Total PCBs	-	-	7.6E-02	5.0E-02	2.4E-01
Antimony	-	9.60E+01	ND	2.8E-01	3.1E-03
Arsenic	-	4.21E+00	3.3E+00	1.9E-01	1.4E+00
Barium	-	8.78E+01	5.6E+01	8.3E+00	8.1E+00
Cadmium	-	8.80E-01	7.0E-01	2.4E-02	1.3E-01
Chromium	-	1.64E+01	7.5E+00	1.3E+00	5.2E-01
Lead	-	3.60E+01	9.5E+00	4.4E-01	4.1E-01
Mercury	-	4.75E-01	1.5E-01	1.7E-02	1.3E+00
Nickel	-	1.09E+01	7.1E+00	2.9E-01	2.3E-01
Silver	-	2.04E+00	7.4E-01	3.2E-01	1.1E+00

Note: Constituents not detected in any sample are not listed.
ND = Not detected in this medium. - = Not analyzed in this medium.

Table G-34
Concentrations in Food Sources at Lake Holloman

Chemical	Conc. in Surf Water (mg/L)	Conc. in Sludge (mg/kg)	Concentration in food items (mg/kg)		
			Benthos	Insect	Fish
Aldrin	ND	ND	1.8E-04	5.5E-04	ND
alpha BHC	3.72E-04	1.94E-03	ND	1.5E-02	ND
beta BHC	ND	ND	ND	6.3E-04	1.0E-03
delta BHC	ND	6.10E-01	ND	9.3E-04	1.4E-04
gamma BHC	1.11E-03	2.47E-03	2.0E-03	1.7E-03	8.1E-04
alpha Chlordane	ND	ND	1.5E-04	1.3E-04	6.1E-04
gamma chlordane	ND	ND	4.0E-04	7.2E-03	1.3E-04
2,4'-DDD	-	-	1.3E-04	1.2E-03	1.7E-04
4,4'-DDD	5.10E-06	6.84E-02	7.6E-04	1.1E-02	9.1E-03
4,4'-DDE	ND	8.32E-03	6.1E-04	2.2E-02	7.2E-03
4,4'-DDT	1.80E-05	3.50E-03	1.6E-04	2.3E-04	1.2E-03
Dieldrin	1.30E-05	1.62E-02	4.5E-04	1.8E-04	1.4E-03
HCB	-	-	1.7E-04	1.3E-03	2.6E-04
Heptachlor	ND	ND	5.6E-04	1.4E-04	2.8E-04
cis Nonachlor	-	-	1.5E-04	5.9E-04	9.5E-04
trans Nonachlor	-	-	3.3E-04	1.3E-04	3.0E-03
OCDD	-	-	1.9E-02	3.0E-04	1.4E-02
OCDF	-	-	1.2E-02	ND	ND
Oxychlordane	-	-	2.3E-04	5.2E-03	7.0E-04
Total HpCDFs	-	-	3.1E-03	7.9E+00	ND
Total Hx CDDs	-	-	ND	4.7E-04	1.5E-04
Total HxCDFs	-	-	1.3E-03	2.9E-04	9.2E-04
Total PCBs	-	-	3.7E-02	5.0E-02	2.5E-02
Antimony	ND	ND	2.7E-01	2.8E-01	6.3E-01
Barium	4.13E-02	9.42E+01	5.6E+00	8.3E+00	6.0E+00
Cadmium	ND	8.81E-01	2.8E-01	2.4E-02	8.4E-02
Chromium	ND	9.27E+00	3.2E-01	1.3E+00	3.8E-01
Lead	1.06E-01	8.47E+00	1.7E-01	4.4E-01	3.7E-01
Mercury	3.21E-04	ND	7.6E-02	1.7E-02	8.9E-02
Nickel	ND	9.37E+00	7.7E-01	2.9E-01	4.1E-01
Silver	ND	1.46E+00	1.4E-01	3.2E-01	1.5E-01

Note: Constituents not detected in any sample are not listed.

ND = Not detected in this medium. - = Not analyzed in this medium.

Table G-35
Concentrations in Food Sources at Lake Stinky

Chemical	Conc. in Surf Water (mg/L)	Conc. in Soil (mg/kg)	Conc. in Benthos (mg/kg)
Aldrin	7.90E-05	5.89E-03	7.84E-04
alpha BHC	3.39E-04	4.37E-03	1.15E-03
delta BHC	ND	7.69E-01	ND
gamma BHC	1.48E-04	8.28E-03	4.90E-03
bis(2-Ethylhexyl)phthalate	-	ND	2.01E+00
alpha Chlordane	ND	ND	9.56E-04
gamma Chlordane	ND	ND	1.73E-03
2,4'-DDD	-	-	1.73E-03
4,4'-DDD	1.45E-04	5.23E-05	1.17E-03
2,4'-DDE	-	-	2.84E-04
4,4'-DDE	ND	ND	8.98E-04
2,4'-DDT	-	-	3.71E-04
4,4'-DDT	ND	1.96E-03	8.98E-04
Dieldrin	1.44E-04	1.32E-03	ND
Endrin	ND	4.97E-03	ND
HCB	-	-	5.71E-05
Heptachlor	ND	6.70E-04	7.90E-04
cis Nonachlor	-	-	1.41E-04
trans Nonachlor	-	-	7.68E-04
OCDF	-	-	3.99E-06
Oxychlordane	-	-	7.17E-04
Total HpCDD	-	-	1.36E+01
Total HxCDD	-	-	1.47E-06
Total HxCDF	-	-	2.80E-05
Total PCBs	-	-	7.14E-02
Antimony	-	ND	1.06E+02
Barium	-	6.89E+01	5.52E+00
Cadmium	-	ND	2.98E+00
Chromium	-	7.21E+00	5.28E+00
Mercury	-	ND	3.76E-02
Nickel	-	7.26E+00	1.73E+00
Silver	-	ND	5.09E-01

Note: Chemicals not detected in any sample are not listed.

ND = Not detected in this medium. - = Not analyzed in this medium.

Table G-36
Intake Modeled From Food Source[a] Concentrations in Pond G

Chemical	Toxicity Data (mg/kg/d)	Killdeer				Mallard				Merganser			
		Uncertainty Factor	Measurement Endpoint (mg/kg/d)	Daily Intake (mg/kg/d)	Ecological Quotient	Uncertainty Factor	Measurement Endpoint (mg/kg/d)	Daily Intake (mg/kg/d)	Ecological Quotient	Uncertainty Factor	Measurement Endpoint (mg/kg/d)	Daily Intake (mg/kg/d)	Ecological Quotient
Aldrin	520	150	3.47	3.6E-05	1.0E-05	10	52	2.4E-07	4.7E-09	50	10.4	6.2E-06	6.0E-07
alpha BHC	0.702	1	0.702	1.2E-03	1.7E-03	5	0.1404	2.8E-05	2.0E-04	5	0.1404	2.5E-05	1.8E-04
beta BHC	0.702	1	0.702	4.0E-05	5.8E-05	ND	ND	ND	ND	5	0.1404	4.3E-06	3.0E-05
delta BHC	0.702	1	0.702	1.1E-04	1.6E-04	5	0.1404	3.0E-05	2.1E-04	5	0.1404	4.3E-05	3.1E-04
gamma BHC	2000	150	13.33	1.9E-04	1.4E-05	10	200	4.6E-05	2.3E-07	50	40	3.4E-05	8.5E-07
alpha Chlordane	709	150	4.73	2.8E-05	5.9E-06	5	141.8	1.1E-05	7.9E-08	50	14.18	2.4E-05	1.7E-06
gamma Chlordane	709	150	4.73	4.6E-04	9.8E-05	5	141.8	1.1E-06	7.9E-09	50	14.18	4.2E-05	3.0E-06
2,4'-DDD	20	15	1.33	9.2E-05	6.9E-05	15	1.33	8.9E-06	6.7E-06	15	1.33	1.9E-05	1.4E-05
4,4'-DDD	20	15	1.33	5.3E-03	4.0E-03	15	1.33	6.5E-04	4.9E-04	15	1.33	1.2E-03	8.7E-04
4,4'-DDE	20	15	1.33	2.3E-03	1.8E-03	15	1.33	1.2E-04	8.9E-05	15	1.33	4.4E-04	3.3E-04
2,4'-DDT	500	15	33.33	3.0E-06	8.9E-08	ND	ND	ND	ND	15	33.33	3.2E-05	9.5E-07
4,4'-DDT	500	15	33.33	4.2E-04	1.3E-05	15	33.33	6.2E-05	1.8E-06	15	33.33	8.8E-05	2.6E-06
Dieldrin	381	100	3.81	5.4E-05	1.4E-05	10	38.1	2.3E-05	6.0E-07	50	7.62	4.7E-05	6.2E-06
Endrin	5.64	150	0.04	5.0E-05	1.3E-03	10	0.564	9.8E-06	1.7E-05	50	0.113	4.0E-05	3.6E-04
HCB	-	-	-	8.3E-05	-	ND	ND	ND	ND	-	-	1.6E-05	-
Heptachlor	2080	150	13.87	1.9E-05	1.4E-06	10	208	5.9E-06	2.8E-08	50	41.6	3.4E-05	8.3E-07
Heptachlor epoxide	2080	150	13.87	3.1E-06	2.2E-07	10	208	3.6E-07	1.7E-09	50	41.6	2.1E-06	5.1E-08
Mirex	-	-	-	1.5E-06	-	ND	ND	ND	ND	-	-	3.5E-06	-
cis Nonachlor	709	150	4.73	3.8E-05	8.0E-06	ND	ND	ND	ND	50	14.18	2.4E-05	1.7E-06
trans Nonachlor	709	150	4.73	1.2E-05	2.5E-06	5	141.8	6.9E-06	4.9E-08	50	14.18	5.4E-05	3.8E-06
OCDD	-	-	-	2.0E-05	-	-	-	1.9E-07	-	ND	ND	ND	ND
OCDF	-	-	-	2.0E-07	-	-	-	1.2E-07	-	ND	ND	ND	ND
Oxychlordane	709	150	4.73	3.4E-04	7.3E-05	5	141.8	4.1E-06	2.9E-08	50	14.18	2.3E-05	1.6E-06
Total HpCDDs	-	-	-	8.4E-06	-	-	-	5.5E-08	-	ND	ND	ND	ND
Total HxCDDs	-	-	-	3.0E-05	-	-	-	2.2E-08	-	ND	ND	ND	ND
Total HxCDFs	-	-	-	1.9E-05	-	-	-	1.1E-07	-	ND	ND	ND	ND
Total PeCDFs	-	-	-	3.4E-03	-	ND	ND	ND	ND	-	-	2.6E-07	-
Total PCBs	1000	10	100	5.7E-03	5.7E-05	10	100	1.4E-03	1.4E-05	10	100	6.9E-03	6.9E-05
Barium	-	-	-	2.9E-01	-	-	-	2.7E-02	-	-	-	3.2E-01	-
Cadmium	20	15	1.33	8.5E-04	6.4E-04	10	2	4.2E-04	2.1E-04	10	2	3.5E-03	1.7E-03
Chromium	10	15	0.667	2.9E-02	4.4E-02	10	1	1.9E-03	1.9E-03	10	1	1.1E-02	1.1E-02
Lead	500	150	3.33	2.3E-01	6.9E-02	150	3.33	2.6E-02	7.9E-03	150	3.33	3.0E-02	9.0E-03
Mercury	0.78	15	0.052	5.8E-03	1.1E-01	10	0.078	1.9E-03	2.5E-02	10	0.078	1.3E-03	1.6E-02
Nickel	700	15	46.67	9.7E-03	2.1E-04	10	70	9.0E-04	1.3E-05	10	70	4.7E-03	6.7E-05
Silver	86	150	0.57	1.6E-02	2.8E-02	150	0.57	3.8E-03	6.7E-03	150	0.57	8.6E-03	1.5E-02

Note: Constituents not detected in any sample are not listed.

(a) Food sources include benthic organisms and insects for killdeer, benthic organisms for mallards, and fish for mergansers. See Table 5-3 for calculation of Daily Intake.

ND = Constituent was not detected in any of the food sources for this species; consequently, an EQ was not calculated for this constituent in this species.

Ecological Quotient = Daily Intake / Measurement Endpoint Measurement Endpoint = Toxicity Data / Uncertainty Factor

- – Constituent could not be evaluated due to the lack of appropriate toxicity data.

Table G-37

Intake Modeled From Food Source[a] Concentrations in the Ditch

Chemical	Toxicity Data (mg/kg/d)	Killdeer[b]				Mallard[b]				Merganser[b]			
		Uncertainty Factor	Measurement Endpoint (mg/kg/d)	Daily Intake (mg/kg/d)	Ecological Quotient	Uncertainty Factor	Measurement Endpoint (mg/kg/d)	Daily Intake (mg/kg/d)	Ecological Quotient	Uncertainty Factor	Measurement Endpoint (mg/kg/d)	Daily Intake (mg/kg/d)	Ecological Quotient
Aldrin	520	150	3.47	1.0E-04	3.0E-05	10	52	2.9E-05	5.6E-07	50	10.4	1.3E-06	1.2E-07
alpha BHC	0.702	1	0.702	9.6E-04	1.4E-03	5	0.1404	2.6E-07	1.9E-06	5	0.1404	2.2E-07	1.6E-06
beta BHC	0.702	1	0.702	8.1E-05	1.2E-04	5	0.1404	2.4E-05	1.7E-04	5	0.1404	1.4E-05	9.8E-05
delta BHC	0.702	1	0.702	2.5E-03	3.5E-03	5	0.1404	2.8E-04	2.0E-03	5	0.1404	1.6E-04	1.1E-03
gamma BHC	2000	150	13.33	1.7E-04	1.3E-05	10	200	2.6E-05	1.3E-07	50	40	6.2E-05	1.6E-06
bis(2-Ethylhexyl)phthalate	1.39	5	0.278	1.6E-01	5.8E-01	1.5	60.67	9.3E-02	1.5E-03	ND	ND	ND	ND
alpha Chlordane	709	150	4.73	1.4E-04	3.1E-05	5	141.8	7.8E-05	5.5E-07	50	14.18	4.4E-04	3.1E-05
Chlordane	709	150	4.73	1.8E-03	3.8E-04	5	141.8	1.4E-04	9.7E-07	50	14.18	7.1E-05	5.0E-06
gamma chlordane	709	150	4.73	6.4E-04	1.4E-04	5	141.8	1.0E-04	7.2E-07	50	14.18	1.6E-04	1.1E-05
2,4'-DDD	20	15	1.33	1.6E-04	1.2E-04	15	1.33	4.7E-05	3.5E-05	15	1.33	1.3E-03	9.5E-04
4,4'-DDD	20	15	1.33	3.6E-03	2.7E-03	15	1.33	1.3E-03	9.4E-04	15	1.33	7.0E-02	5.3E-02
2,4'-DDE	20	15	1.33	1.1E-03	8.1E-04	15	1.33	2.4E-06	1.8E-06	15	1.33	1.3E-04	1.0E-04
4,4'-DDE	20	15	1.33	2.5E-03	1.9E-03	15	1.33	5.4E-04	4.1E-04	15	1.33	2.1E-02	1.6E-02
2,4'-DDT	500	15	33.33	3.0E-06	8.9E-08	ND	ND	ND	ND	15	33.33	1.4E-04	4.1E-06
4,4'-DDT	500	15	33.33	3.6E-04	1.1E-05	15	33.33	4.6E-05	1.4E-06	15	33.33	3.6E-03	1.1E-04
Dieldrin	381	100	3.81	3.2E-04	8.5E-05	10	38.1	1.8E-04	4.6E-06	50	7.62	1.5E-04	2.0E-05
Endrin	5.64	150	0.04	5.1E-05	1.3E-03	10	0.564	2.1E-06	3.6E-06	50	0.113	1.8E-05	1.6E-04
HCB	-	-	-	1.0E-04	-	-	-	1.1E-05	-	-	-	2.3E-05	-
Heptachlor	2080	150	13.87	1.7E-05	1.2E-06	10	208	4.6E-06	2.2E-08	50	41.6	4.2E-06	1.0E-07
cis Nonachlor	709	150	4.73	1.8E-04	3.8E-05	5	141.8	8.2E-05	5.8E-07	50	14.18	7.4E-04	5.2E-05
trans Nonachlor	709	150	4.73	1.9E-04	4.1E-05	5	141.8	1.1E-04	7.6E-07	50	14.18	2.8E-03	2.0E-04
OCDD	-	-	-	2.9E-05	-	-	-	5.5E-06	-	-	-	1.9E-03	-
OCDF	-	-	-	7.8E-07	-	-	-	4.5E-07	-	ND	ND	ND	ND
Oxychlordane	709	150	4.73	6.0E-04	1.3E-04	5	141.8	1.5E-04	1.1E-06	50	14.18	5.8E-04	4.1E-05
Total HpCDDs	-	-	-	9.6E-06	-	-	-	7.5E-07	-	ND	ND	ND	ND
Total HxCDFs	-	-	-	1.9E-05	-	-	-	9.7E-08	-	-	-	1.2E-05	-
Total PCBs	1000	10	100	7.4E-03	7.4E-05	10	100	2.4E-03	2.4E-05	10	100	6.6E-03	6.6E-05
Antimony	-	-	-	9.2E-01	-	ND	ND	ND	ND	-	-	5.4E-02	-
Arsenic	323	150	2.15	2.3E-01	1.1E-01	100	3.23	1.1E-01	3.4E-02	100	3.23	4.2E-02	1.3E-02
Barium	-	-	-	8.9E-01	-	-	-	3.8E-01	-	-	-	2.8E-01	-
Cadmium	20	15	1.33	3.7E-03	2.8E-03	10	2	1.8E-03	8.8E-04	10	2	4.2E-03	2.1E-03
Chromium	10	15	0.667	9.7E-02	1.5E-01	10	1	3.8E-02	3.8E-02	10	1	2.4E-02	2.4E-02
Lead	500	150	3.33	4.4E-01	1.3E-01	150	3.33	1.7E-01	5.1E-02	150	3.33	3.2E-02	9.6E-03
Mercury	0.78	15	0.052	1.4E-02	2.7E-01	10	0.078	5.4E-03	6.9E-02	10	0.078	3.6E-02	4.6E-01
Nickel	700	15	46.67	5.1E-02	1.1E-03	10	70	2.4E-02	3.4E-04	10	70	1.2E-02	1.8E-04
Silver	86	150	0.57	1.7E-02	3.0E-02	150	0.57	5.4E-03	9.4E-03	150	0.57	3.2E-02	5.6E-02

Note: Constituents not detected in any sample are not listed.

(a) Food sources include benthic organisms and insects for killdeer, benthic organisms for mallards, and fish for mergansers. See Table 5-3 for calculation of Daily Intake.

(b) These species are not common at the Ditch due to the presence of vegetative cover.

ND = Constituent was not detected in any of the food sources for this species; consequently, an EQ was not calculated for this constituent in this species.

- = Constituent could not be evaluated due to the lack of appropriate toxicity data.

Ecological Quotient = Daily Intake / Measurement Endpoint Measurement Endpoint = Toxicity Data / Uncertainty Factor

BDITCH.XLS 3/8/96

Table G-38
Intake Modeled From Food Source[a] Concentrations in Lake Holloman

Chemical	Toxicity Data (mg/kg/d)	Mallard[a]				Merganser[a]			
		Uncertainty Factor	Measurement Endpoint (mg/kg/d)	Daily Intake (mg/kg/d)	Ecological Quotient	Uncertainty Factor	Measurement Endpoint (mg/kg/d)	Daily Intake (mg/kg/d)	Ecological Quotient
Aldrin	520	10	52	5.7E-06	1.1E-07	ND	ND	ND	ND
alpha BHC	0.702	5	0.1404	1.5E-05	1.0E-04	5	0.1404	1.9E-05	1.4E-04
beta BHC	0.702	ND	ND	ND	ND	5	0.1404	2.8E-05	2.0E-04
delta BHC	0.702	5	0.1404	6.6E-04	4.7E-03	5	0.1404	3.5E-04	2.5E-03
gamma BHC	2000	10	200	1.0E-04	5.2E-07	50	40	7.9E-05	2.0E-06
alpha Chlordane	709	5	141.8	4.7E-06	3.3E-08	50	14.18	1.7E-05	1.2E-06
gamma chlordane	709	5	141.8	1.3E-05	9.0E-08	50	14.18	3.6E-06	2.6E-07
2,4'-DDD	20	15	1.33	4.1E-06	3.1E-06	15	1.33	4.8E-06	3.6E-06
4,4'-DDD	20	15	1.33	9.8E-05	7.4E-05	15	1.33	2.9E-04	2.2E-04
4,4'-DDE	20	15	1.33	2.8E-05	2.1E-05	15	1.33	2.0E-04	1.5E-04
4,4'-DDT	500	15	33.33	9.5E-06	2.9E-07	15	33.33	3.7E-05	1.1E-06
Dieldrin	381	10	38.1	3.2E-05	8.5E-07	50	7.62	4.9E-05	6.4E-06
HCB	-	-	-	5.3E-06	-	-	-	7.3E-06	-
Heptachlor	2080	10	208	1.8E-05	8.5E-08	50	41.6	7.8E-06	1.9E-07
cis Nonachlor	709	5	141.8	4.6E-06	3.2E-08	50	14.18	2.6E-05	1.9E-06
trans Nonachlor	709	5	141.8	1.0E-05	7.3E-08	50	14.18	8.4E-05	5.9E-06
OCDD	-	-	-	6.1E-04	-	-	-	4.0E-04	-
OCDF	-	-	-	3.9E-04	-	ND	ND	ND	ND
Oxychlordane	709	5	141.8	7.1E-06	5.0E-08	50	14.18	2.0E-05	1.4E-06
Total HpCDFs	-	-	-	9.7E-05	-	ND	ND	ND	ND
Total HxCDDs	-	ND	ND	ND	ND	-	-	4.20439E-06	-
Total HxCDFs	-	-	-	4.1E-05	-	-	-	2.54609E-05	-
Total PCBs	1000	10	100	1.2E-03	1.2E-05	10	100	6.8E-04	6.8E-06
Antimony	-	-	-	8.5E-03	-	-	-	1.7E-02	-
Barium	-	-	-	5.6E-02	-	-	-	4.5E-02	-
Cadmium	20	10	2	7.4E-04	3.7E-04	10	2	2.2E-04	1.1E-04
Chromium	10	10	1	3.0E-03	3.0E-03	10	1	2.4E-03	2.4E-03
Lead	500	150	3.33	9.1E-03	2.7E-03	150	3.33	1.0E-02	3.1E-03
Mercury	0.78	10	0.078	2.4E-03	3.1E-02	10	0.078	2.5E-03	3.2E-02
Nickel	700	10	70	3.5E-03	5.0E-05	10	70	1.7E-03	2.4E-05
Silver	86	150	0.57	1.3E-03	2.2E-03	150	0.57	1.1E-03	1.8E-03

Note: Constituents not detected in any sample are not listed.

(a) Food sources include benthic organisms for mallards and fish for mergansers. See Table 5-3 for calculation of Daily Intake.

ND = Constituent was not detected in any of the food sources for this species; consequently, an EQ was not calculated for this constituent in this species.

- = Constituent could not be evaluated due to the lack of appropriate toxicity data.

Ecological Quotient = Daily Intake / Measurement Endpoint Measurement Endpoint = Toxicity Data / Uncertainty Factor

Table G-39
Intake Modeled From Food Source[a] Concentrations in Lake Stinky

Chemical	Toxicity Data (mg/kg/d)	Mallard[a]			
		Uncertainty Factor	Measurement Endpoint (mg/kg/d)	Daily Intake (mg/kg/d)	Ecological Quotient
Aldrin	520	10	52	3.4E-05	6.5E-07
alpha BHC	0.702	5	0.1404	5.2E-05	3.7E-04
delta BHC	0.702	5	0.1404	8.3E-04	5.9E-03
gamma BHC	2000	10	200	1.7E-04	8.4E-07
bis(2-Ethylhexyl)phthalate	1.39	1.5	60.67	6.4E-02	1.0E-03
alpha Chlordane	709	5	141.8	3.0E-05	2.1E-07
gamma chlordane	709	5	141.8	5.5E-05	3.9E-07
2,4'-DDD	20	15	1.33	5.5E-05	4.1E-05
4,4'-DDD	20	15	1.33	4.2E-05	3.2E-05
2,4'-DDE	20	15	1.33	9.0E-06	6.8E-06
4,4'-DDE	20	15	1.33	2.8E-05	2.1E-05
2,4'-DDT	500	15	1.33	1.2E-05	8.8E-06
4,4'-DDT	500	15	1.33	3.1E-05	2.3E-05
Dieldrin	381	10	38.1	6.3E-06	1.6E-07
Endrin	5.64	10	0.564	5.4E-06	9.6E-06
HCB	-	-	-	1.8E-06	-
Heptachlor	2080	10	208	2.6E-05	1.2E-07
cis Nonachlor	709	5	141.8	4.5E-06	3.1E-08
trans Nonachlor	709	5	141.8	2.4E-05	1.7E-07
OCDF	-	-	-	2.3E-05	-
Oxychlordane	709	5	141.8	1.3E-07	8.9E-10
Total HpCDDs	-	-	-	4.3E-01	-
Total HxCDDs	-	-	-	4.7E-08	-
Total HxCDFs	-	-	-	8.9E-07	-
Total PCBs	1000	10	100	2.3E-03	2.3E-05
Antimony	-	-	-	3.4E+00	-
Barium	-	-	-	2.5E-01	-
Cadmium	20	10	2	9.4E-02	4.7E-02
Chromium	10	10	1	1.7E-01	1.7E-01
Mercury	0.78	10	0.078	1.2E-03	1.5E-02
Nickel	700	10	70	6.3E-02	9.0E-04
Silver	86	150	0.57	1.6E-02	2.8E-02

Note: Constituents not detected in any sample are not listed.
(a) Food sources include benthic organisms for mallards. See Table 5-3 for calculation of Daily Intake.
- = Constituent could not be evaluated due to the lack of appropriate toxicity data.
Ecological Quotient = Daily Intake / Measurement Endpoint
Measurement Endpoint = Toxicity Data / Uncertainty Factor

Table G-40
Ecological Quotients for Black-Necked Stilt Tissue Samples [a]

Analyte	Mean (mg/kg)	95% UCL (mg/kg)	Daily Intake (mg/kg/d)	Toxicity Data (mg/kg/d)	Uncertainty Factor	Measurement Endpoint (mg/kg/d)	Ecological Quotient
beta BHC	1.72E+00	2.29E+00	1.64E-01	0.702	1	0.70	2.33E-01
delta BHC	1.49E+00	2.69E+00	1.92E-01	0.702	1	0.70	2.73E-01
gamma BHC	4.26E+00	1.14E+01	8.12E-01	2000	150	13.33	6.09E-02
alpha Chlordane	5.54E-01	7.19E-01	5.14E-02	709	150	4.73	1.09E-02
gamma chlordane	7.93E-01	1.17E+00	8.33E-02	709	150	4.73	1.76E-02
2,4'-DDD	4.08E-02	5.88E-02	4.20E-03	20	15	1.33	3.15E-03
4,4'-DDD	8.09E+00	1.21E+01	8.65E-01	20	15	1.33	6.48E-01
2,4'-DDE	3.91E+00	4.54E+00	3.24E-01	20	15	1.33	2.43E-01
4,4'-DDE	1.03E+02	1.39E+02	9.95E+00	20	15	1.33	7.46E+00
2,4'-DDT	6.17E-01	8.49E-01	6.06E-02	500	15	33.33	1.82E-03
Dieldrin	3.87E+00	7.49E+00	5.35E-01	381	100	3.81	1.40E-01
Endrin	1.16E-01	2.12E-01	1.52E-02	5.64	150	0.04	4.04E-01
HCB	1.76E+00	2.27E+00	1.62E-01	-	-	-	-
cis Nonachlor	1.36E+00	1.84E+00	1.32E-01	709	150	4.73	2.78E-02
trans Nonachlor	1.44E+00	2.10E+00	1.50E-01	709	150	4.73	3.17E-02
Oxychlordane	1.10E+01	1.37E+01	9.79E-01	709	150	4.73	2.07E-01
Total PCBs	1.41E+01	1.79E+01	1.28E+00	1000	10	100	1.28E-02
Arsenic	1.86E-02	3.97E-02	2.84E-03	323	150	2.15	1.32E-03
Barium	1.84E+00	2.62E+00	1.87E-01	-	-	-	-
Cadmium	5.00E-02	1.19E-01	8.49E-03	20	15	1.33	6.37E-03
Chromium	3.50E-01	3.84E-01	2.74E-02	10	15	0.67	4.11E-02
Lead	2.80E-01	4.33E-01	3.09E-02	500	150	3.33	9.28E-03
Mercury	7.17E-02	8.92E-02	6.37E-03	0.78	15	0.05	1.23E-01
Nickel	2.87E-01	6.06E-01	4.33E-02	700	15	46.67	9.28E-04
Silver	5.00E-01	5.30E-01	3.79E-02	86	150	0.57	6.60E-02

Note: Constituents not detected in any sample are not listed.
(a) Sample set consisted of three black-necked stilts.
UCL = Upper Confidence Limit
Daily Intake = The UCL in tissue / The lifespan of the stilts (14 days).
- = Constituent could not be evaluated due to the lack of appropriate toxicity data.
Measurement Endpoint = Toxicity Data / Uncertainty Factor
Ecological Quotient = Daily Intake / Measurement Endpoint

Table G-41
Ecological Quotients for Mallard Tissue Samples [a]

Analyte	Mean (mg/kg)	95% UCL (mg/kg)	Daily Intake (mg/kg/d)	Toxicity Data (mg/kg/d)	Uncertainty Factor	Measurement Endpoint (mg/kg/d)	Ecological Quotient
beta BHC	5.12E+00	1.41E+01	5.23E-02	0.70	5	0.1404	3.72E-01
gamma BHC	1.11E+01	1.82E+01	6.73E-02	2000	10	200	3.36E-04
alpha Chlordane	4.75E+00	8.82E+00	3.26E-02	709	5	141.8	2.30E-04
gamma chlordane	3.35E+00	3.68E+00	1.36E-02	709	5	141.8	9.62E-05
2,4'-DDD	1.77E-01	2.83E-01	1.05E-03	20	15	1.33	7.87E-04
4,4'-DDD	6.50E+00	1.25E+01	4.64E-02	20	15	1.33	3.48E-02
2,4'-DDE	3.02E+00	8.83E+00	3.27E-02	20	15	1.33	2.45E-02
4,4'-DDE	1.99E+02	4.05E+02	1.50E+00	20	15	1.33	1.13E+00
2,4'-DDT	1.35E+00	1.93E+00	7.16E-03	500	15	33.33	2.15E-04
4,4'-DDT	8.00E-01	1.96E+00	7.25E-03	500	15	33.33	2.18E-04
Dieldrin	2.43E+00	5.06E+00	1.87E-02	381	10	38.1	4.92E-04
Endrin	1.10E+00	2.19E+00	8.10E-03	5.64	10	0.564	1.44E-02
HCB	1.82E+00	3.83E+00	1.42E-02	-	-	-	-
Heptachlor	1.52E-01	2.00E-01	7.42E-04	2080	10	208	3.57E-06
Mirex	7.01E-02	9.24E-02	3.42E-04	-	-	-	-
cis Nonachlor	7.22E-01	8.07E-01	2.99E-03	709	5	141.8	2.11E-05
trans Nonachlor	1.03E+00	1.75E+00	6.47E-03	709	5	141.8	4.56E-05
Oxychlordane	5.94E+01	1.16E+02	4.28E-01	709	5	141.8	3.02E-03
Total PCBs	1.95E+01	4.46E+01	1.65E-01	1000	10	100	1.65E-03
Total PeCDFs	5.63E+01	8.51E+01	3.15E-01	-	-	-	-
Antimony	3.72E-02	7.09E-02	2.63E-04	-	-	-	-
Arsenic	1.14E+00	3.35E+00	1.24E-02	323	100	3.23	3.85E-03
Barium	7.16E+00	2.12E+01	7.84E-02	-	-	-	-
Cadmium	8.10E-01	2.31E+00	8.57E-03	20	10	2	4.28E-03
Chromium	1.90E-01	3.07E-01	1.14E-03	10	10	1	1.14E-03
Lead	3.39E+00	9.91E+00	3.67E-02	500	150	3.33	1.10E-02
Mercury	9.38E-02	1.64E-01	6.07E-04	0.78	10	0.078	7.78E-03
Nickel	7.21E-02	1.26E-01	4.66E-04	700	10	70	6.66E-06
Silver	9.95E-01	2.65E+00	9.80E-03	86	150	0.57	1.71E-02

Note: Constituents not detected in any sample are not listed.
(a) Sample set consisted of four samples from 1 mallard.
UCL = Upper Confidence Limit
Daily Intake = The UCL in tissue / The lifespan of the mallard (270 days).
- = Constituent could not be evaluated due to the lack of appropriate toxicity data.
Measurement Endpoint = Toxicity Data / Uncertainty Factor
Ecological Quotient = Daily Intake / Measurement Endpoint

Table G-42
Ecological Quotients for Fish [a] in Pond G

Chemical	Tissue Concentration (mg/kg)	Toxicity Data (mg/L)	Uncertainty Factor	Bioconcentration Factor (mg/kg tissue)/ (mg/l in water)	Measurement Endpoint (mg/kg)	Ecological Quotient
Aldrin	2.2E-04	1.3E-03	10	3140	0.4082	5.5E-04
alpha BHC	4.8E-04	3.2E-02	100	1613	0.51616	9.4E-04
beta BHC	1.5E-04	3.2E-02	100	1613	0.51616	3.0E-04
delta BHC	1.6E-03	3.2E-02	100	1613	0.51616	3.0E-03
gamma BHC	1.2E-03	8.7E-02	100	490	0.4263	2.9E-03
alpha Chlordane	8.7E-04	2.5E-02	100	3000	0.75	1.2E-03
gamma Chlordane	1.5E-03	2.5E-02	100	3000	0.75	2.0E-03
2,4'-DDD	6.9E-04	1.0E-06	1	12000	0.012	5.8E-02
4,4'-DDD	3.2E-02	1.0E-06	1	12000	0.012	2.7E+00
4,4'-DDE	1.4E-02	1.0E-06	1	12000	0.012	1.2E+00
2,4'-DDT	1.1E-03	1.0E-06	1	12000	0.012	9.5E-02
4,4'-DDT	2.3E-03	1.0E-06	1	12000	0.012	2.0E-01
Dieldrin	1.7E-03	2.5E-03	10	6145	1.53625	1.1E-03
Endrin	1.5E-03	6.0E-04	10	6561	0.39366	3.7E-03
HCB	5.7E-04	-	-	-	-	-
Heptachlor	1.2E-03	1.1E-02	100	20	0.0021	5.9E-01
Heptachlor epoxide	7.0E-05	1.1E-02	100	20	0.0021	3.3E-02
Mirex	1.3E-04	-	-	-	-	-
cis Nonachlor	8.8E-04	2.5E-02	100	3000	0.75	1.2E-03
trans Nonachlor	2.0E-03	2.5E-02	100	3000	0.75	2.6E-03
Oxychlordane	8.3E-04	2.5E-02	100	3000	0.75	1.1E-03
Total PCBs	2.5E-01	3.0E-05	1	575000	17.25	1.4E-02
Total PeCDFs	9.4E-06	-	-	-	-	-
Barium	9.5E+00	-	-	-	-	-
Cadmium	1.2E-01	1.0E-02	1	2213	22.13	5.6E-03
Chromium	1.7E-01	5.1E+00	100	86	4.3602	4.0E-02
Lead	1.4E-01	5.6E+00	100	42	2.3436	6.2E-02
Mercury	4.2E-02	1.6E-01	100	10000	15.5	2.7E-03
Silver	2.4E-01	9.2E-04	1	7650	7.038	3.5E-02

Note: Constituents not detected in any sample are not listed.
(a) Fish data set consisted of 1 composite sample.
- = Constituent could not be evaluated due to the lack of appropriate toxicity data.
Ecological Quotient = Tissue Concentration / Measurement Endpoint
Measurement Endpoint = (Toxicity Data / Uncertainty Factor) x Bioconcentration Factor

Table G-43
Ecological Quotients for Fish [a] in the Ditch

Chemical	Tissue Concentration (mg/kg)	Toxicity Data (mg/L)	Uncertainty Factor	Bioconcentration Factor (mg/kg tissue)/ (mg/l in water)	Measurement Endpoint (mg/kg)	Ecological Quotient
beta BHC	4.9E-04	3.2E-02	100	1613	0.51616	9.6E-04
delta BHC	5.1E-04	3.2E-02	100	1613	0.51616	9.9E-04
gamma BHC	2.2E-03	8.7E-02	100	490	0.4263	5.1E-03
alpha Chlordane	1.6E-02	2.5E-02	100	3000	0.75	2.1E-02
gamma Chlordane	5.8E-03	2.5E-02	100	3000	0.75	7.7E-03
2,4'-DDD	4.5E-02	1.0E-06	1	12000	0.012	3.8E+00
4,4'-DDD	2.5E+00	1.0E-06	1	12000	0.012	2.1E+02
2,4'-DDE	4.8E-03	1.0E-06	1	12000	0.012	4.0E-01
4,4'-DDE	7.5E-01	1.0E-06	1	12000	0.012	6.3E+01
2,4'-DDT	4.9E-03	1.0E-06	1	12000	0.012	4.1E-01
4,4'-DDT	1.3E-01	1.0E-06	1	12000	0.012	1.1E+01
Dieldrin	5.4E-03	2.5E-03	10	6145	1.53625	3.5E-03
Endrin	6.2E-04	6.0E-04	10	6561	0.39366	1.6E-03
HCB	8.2E-04	-	-	-	-	-
Heptachlor	1.5E-04	1.1E-02	100	20	0.0021	7.3E-02
cis Nonachlor	2.7E-02	2.5E-02	100	3000	0.75	3.6E-02
trans Nonachlor	1.0E-01	2.5E-02	100	3000	0.75	1.4E-01
OCDD	7.0E-02	-	-	-	-	-
Oxychlordane	2.1E-02	2.5E-02	100	3000	0.75	2.8E-02
Total HxCDFs	4.2E-04	-	-	-	-	-
Total PCBs	2.4E-01	3.0E-05	1	575000	17.25	1.4E-02
Antimony	3.1E-03	-	-	-	-	-
Arsenic	1.4E+00	3.6E-02	1	333	11.988	1.2E-01
Barium	8.1E+00	-	-	-	-	-
Cadmium	1.3E-01	1.0E-02	1	2213	22.13	6.0E-03
Chromium	5.2E-01	5.1E+00	100	86	4.3602	1.2E-01
Lead	4.1E-01	5.6E+00	100	42	2.3436	1.8E-01
Mercury	1.3E+00	1.6E-01	100	10000	15.5	8.3E-02
Nickel	2.3E-01	8.3E-03	1	100	0.83	2.7E-01
Silver	1.1E+00	9.2E-04	1	7650	7.038	1.6E-01

Note: Constituents not detected in any sample are not listed.
(a) Fish data set consisted of 1 composite sample.
- = Constituent could not be evaluated due to the lack of appropriate toxicity data.
Ecological Quotient = Tissue Concentration / Measurement Endpoint
Measurement Endpoint = (Toxicity Data / Uncertainty Factor) x Bioconcentration Factor

Table G-44
Summary Statistics for Benthic Organisms

Analyte	Lake Stinky				Ditch				Lake Holloman				Pond G [a]	
	Sample Size	Mean (mg/kg)	Standard Deviation	95% UCL (mg/kg)	Sample Size	Mean (mg/kg)	Standard Deviation	95% UCL (mg/kg)	Sample Size	Mean (mg/kg)	Standard Deviation	95% UCL (mg/kg)	Sample Size	Mean (mg/kg)
Aldrin	3	3.75E-04	3.62E-04	7.84E-04	2	6.41E-04	1.42E-04	8.38E-04	3	1.12E-04	5.93E-05	1.79E-04	1	7.70E-06
alpha BHC	3	9.09E-04	2.10E-04	1.15E-03	--	--	--	--	3	--	--	--	1	1.91E-04
beta BHC	--	--	--	--	2	4.48E-04	2.14E-04	7.44E-04	3	--	--	--	1	--
delta BHC	3	--	--	--	2	1.03E-04	3.93E-05	1.57E-04	3	--	--	--	1	9.22E-04
gamma BHC	3	2.41E-03	2.20E-03	4.90E-03	2	5.96E-04	9.56E-05	7.29E-04	3	1.29E-03	6.53E-04	2.03E-03	1	1.46E-03
bis(2-Ethylhexyl)phthalate	3	1.51E+00	4.43E-01	2.01E+00	2	5.85E-01	1.70E+00	2.95E+00	3	--	--	--	1	--
alpha Chlordane	3	4.41E-04	4.56E-04	9.56E-04	2	1.85E-03	4.52E-04	2.48E-03	3	1.07E-04	3.54E-05	1.47E-04	1	3.52E-04
gamma chlordane	3	8.44E-04	7.80E-04	1.73E-03	2	2.46E-03	5.45E-04	3.21E-03	3	1.54E-04	2.20E-04	4.03E-04	1	3.54E-05
Total chlordanes	3	2.49E-03	1.75E-03	4.47E-03	2	6.87E-03	4.69E-03	1.34E-02	3	8.74E-04	8.15E-04	1.80E-03	1	9.23E-04
2,4'-DDD	3	3.05E-05	1.50E-05	4.75E-05	2	8.22E-04	4.69E-04	1.47E-03	3	9.21E-05	3.25E-05	1.29E-04	1	2.81E-04
4,4'-DDD	3	9.93E-04	1.56E-04	1.17E-03	2	1.63E-02	1.43E-02	3.61E-02	3	5.27E-04	2.05E-04	7.58E-04	1	4.87E-03
2,4'-DDE	3	1.73E-04	9.75E-05	2.84E-04	2	1.49E-05	4.45E-05	7.66E-05	3	--	--	--	1	--
4,4'-DDE	3	7.45E-04	8.67E-04	1.73E-03	2	2.57E-03	1.00E-02	1.65E-02	3	5.67E-04	3.65E-05	6.08E-04	1	3.74E-04
2,4'-DDT	3	2.00E-04	1.51E-04	3.71E-04	--	--	--	--	3	--	--	--	1	--
4,4'-DDT	3	7.81E-04	1.03E-04	8.98E-04	2	7.82E-06	1.72E-04	2.46E-04	3	8.39E-05	6.98E-05	1.63E-04	1	5.78E-04
Di-n-butylphthalate	3	1.54E+00	8.49E-01	2.50E+00		--	--	--		--	--	--		--
Dieldrin	3	3.19E-04	1.41E-04	4.79E-04	2	1.00E-03	3.26E-03	5.51E-03	3	2.72E-04	1.57E-04	4.50E-04	1	7.14E-04
Endrin	3	--	--	--	2	--	--	--	3	--	--	--	1	3.10E-04
HCB	3	3.10E-05	2.31E-05	5.71E-05	2	7.26E-05	1.94E-04	3.42E-04	3	6.85E-05	8.64E-05	1.66E-04	1	--
Heptachlor	3	4.10E-04	3.36E-04	7.90E-04	2	1.71E-05	9.16E-05	1.44E-04	3	3.34E-04	1.97E-04	5.57E-04	1	1.87E-04
cis Nonachlor	3	1.25E-04	1.43E-05	1.41E-04	2	8.40E-04	1.25E-03	2.58E-03	3	9.25E-05	4.69E-05	1.46E-04	1	--
trans Nonachlor	3	4.52E-04	2.79E-04	7.68E-04	2	1.29E-03	1.51E-03	3.39E-03	3	2.09E-04	1.02E-04	3.25E-04	1	2.19E-04
OCDD	3	--	--	--	2	1.03E-04	5.09E-05	1.74E-04	3	1.11E-05	7.24E-06	1.93E-05	1	6.02E-06
OCDF	3	3.61E-06	3.42E-07	3.99E-06	2	7.56E-06	4.81E-06	1.42E-05	3	7.99E-06	3.92E-06	1.24E-05	1	3.70E-06
Oxychlordane	3	4.91E-04	2.00E-04	7.17E-04	2	4.12E-04	3.11E-03	4.73E-03	3	1.54E-04	6.31E-05	2.25E-04	1	1.29E-04
Total HpCDDs	3	--	--	--	2	1.59E-05	5.73E-06	2.38E-05	3	--	--	--	1	1.73E-06
Total HpCDFs	3	--	--	--	2	--	--	--	3	1.41E-06	1.47E-06	3.08E-06	1	--
Total Hx CDDs	3	9.14E-07	4.89E-07	1.47E-06	2	--	--	--	3	--	--	--	1	7.00E-07
Total HxCDFs	3	1.42E-05	1.22E-05	2.80E-05	2	1.98E-06	7.88E-07	3.07E-06	3	6.10E-07	6.19E-07	1.31E-06	1	3.45E-06
Total PCBs	3	4.00E-02	2.78E-02	7.14E-02	2	5.92E-02	1.20E-02	7.58E-02	3	1.88E-02	1.58E-02	3.66E-02	1	4.38E-02
Antimony	3	3.58E+01	6.19E+01	1.06E+02	2	--	--	--	3	2.03E-01	5.79E-02	2.68E-01	1	--
Arsenic	3	1.58E+00	1.19E+00	2.92E+00	2	1.98E+00	9.42E-01	3.28E+00	3	1.81E+00	4.42E-01	2.31E+00	1	1.63E+00
Barium	3	2.83E+00	2.38E+00	5.52E+00	2	2.91E+01	1.98E+01	5.64E+01	3	5.57E+00	1.48E-02	5.59E+00	1	9.72E-01
Cadmium	3	1.14E+00	1.62E+00	2.98E+00	2	5.40E-01	1.14E-01	6.98E-01	3	2.25E-01	4.67E-02	2.78E-01	1	1.76E-01
Chromium	3	2.05E+00	2.85E+00	5.28E+00	2	5.17E+00	1.67E+00	7.48E+00	3	2.32E-01	7.35E-02	3.15E-01	1	--
Lead	3	4.83E-01	2.27E-01	7.40E-01	2	5.94E+00	2.54E+00	9.45E+00	3	1.56E-01	1.35E-02	1.71E-01	1	1.18E-01
Mercury	3	3.50E+03	6.06E+03	1.04E+04	2	8.66E-02	4.88E-02	1.54E-01	3	6.87E-02	6.29E-03	7.59E-02	1	5.50E-02
Nickel	3	6.63E-01	9.47E-01	1.73E+00	2	3.68E+00	2.49E+00	7.14E+00	3	5.08E-01	2.36E-01	7.75E-01	1	5.05E-02
Silver	3	1.96E-01	2.77E-01	5.09E-01	2	7.34E-01	3.16E-03	7.38E-01	3	1.10E-01	2.61E-02	1.39E-01	1	4.61E-01

Note: Constituents not detected in any sample are not listed.

[a] Only one sample available, therefore UCL and standard deviation. were not determined.

Table G-45
Summary Statistics for Insects

Analyte	Pond G				Ditch [a]	
	Sample Size	Mean (mg/kg)	Standard Deviation	95% UCL (mg/kg)	Sample Size	Mean (mg/kg)
Aldrin	2	3.63E-05	3.72E-04	5.52E-04	1	--
alpha BHC	2	6.14E-03	6.34E-03	1.49E-02	1	3.15E-04
beta BHC	2	3.10E-04	2.30E-04	6.29E-04	1	--
delta BHC	2	5.04E-04	3.06E-04	9.28E-04	1	--
gamma BHC	2	8.80E-04	5.92E-04	1.70E-03	1	3.73E-04
Total BHCs	2	7.33E-03	6.57E-03	1.64E-02	1	1.03E-03
bis(2-Ethylhexyl)phthalate	2	--	--	--	1	2.04E+01
alpha Chlordane	2	9.44E-05	2.60E-05	1.30E-04	1	3.25E-03
gamma chlordane	2	3.33E-03	2.78E-03	7.18E-03	1	--
Total chlordanes	2	5.62E-03	2.59E-03	9.21E-03	1	7.13E-03
2,4'-DDD	2	7.90E-04	2.90E-04	1.19E-03	1	6.08E-05
4,4'-DDD	2	5.88E-03	3.85E-03	1.12E-02	1	3.00E-03
2,4'-DDE	2	7.24E-03	6.78E-03	1.66E-02	1	--
4,4'-DDE	2	1.25E-02	6.62E-03	2.17E-02	1	6.46E-03
2,4'-DDT	2	4.43E-05	1.18E-06	4.59E-05	1	--
4,4'-DDT	2	1.30E-04	7.01E-05	2.27E-04	1	6.75E-04
Total DDTs	2	2.66E-02	1.37E-02	4.56E-02	1	1.02E-02
Dieldrin	2	1.25E-05	1.20E-04	1.79E-04	1	2.86E-04
Endrin	2	3.20E-05	3.50E-04	5.17E-04	1	--
HCB	2	4.80E-04	5.80E-04	1.28E-03	1	3.45E-04
Heptachlor	2	5.47E-05	6.00E-05	1.38E-04	1	1.97E-04
Mirex	2	1.69E-05	4.61E-06	2.33E-05	1	--
cis Nonachlor	2	3.10E-04	2.00E-04	5.87E-04	1	7.79E-04
trans Nonachlor	2	1.22E-04	9.10E-06	1.35E-04	1	1.96E-03
OCDD	2	4.25E-05	1.88E-04	3.03E-04	1	8.81E-06
Oxychlordane	2	1.71E-03	2.53E-03	5.22E-03	1	9.43E-04
2,3,7,8-TCDD	2	1.19E-07	2.90E-05	4.03E-05	1	--
2,3,7,8-TCDF	2	1.23E-05	7.83E-06	2.32E-05	1	--
Total HpCDDs	2	5.02E-05	5.69E-05	1.29E-04	1	--
Total HpCDFs	2	1.08E-05	4.90E-05	7.87E-05	1	--
Total Hx CDDs	2	2.02E-04	1.90E-04	4.65E-04	1	--
Total HxCDFs	2	4.51E-05	1.80E-04	2.95E-04	1	--
Total PCBs	2	2.72E-02	1.68E-02	5.05E-02	1	3.39E-02
Total PeCDDs	2	2.00E-05	3.31E-05	6.59E-05	1	--
Total PeCDFs	2	2.43E-02	2.05E-02	5.27E-02	1	--
Antimony	2	1.50E-01	9.48E-02	2.81E-01	1	4.04E-02
Arsenic	2	1.96E-02	1.24E-01	1.91E-01	1	4.04E-01
Barium	2	3.16E+00	3.68E+00	8.26E+00	1	7.55E-01
Cadmium	2	1.00E-02	1.00E-02	2.39E-02	1	1.05E-01
Chromium	2	3.60E-01	6.70E-01	1.29E+00	1	1.27E-01
Lead	2	1.20E-01	2.30E-01	4.39E-01	1	7.69E-02
Mercury	2	9.00E-03	6.00E-03	1.73E-02	1	7.34E-02
Nickel	2	4.00E-02	1.80E-01	2.89E-01	1	1.09E-01
Silver	2	7.00E-02	1.80E-01	3.19E-01	1	9.28E-01

Note: Constituents not detected in any sample are not listed.
[a] Only one sample available, therefore UCL and Std. Dev. were not determined.

Table G-46
Summary Statistics for Widgeon Grass

Analyte	Lake Stinky [a]	
	Sample Size	Concentration (mg/kg)
gamma BHC	1	9.92E-04
Total BHCs	1	9.92E-04
4,4'-DDE	1	4.97E-03
Total DDTs	1	4.97E-03
Di-n-butylphthalate	1	8.33E-01
Dieldrin	1	1.77E-03
Endrin	1	1.63E-03
Total HpCDFs	1	6.20E-07
Total HxCDFs	1	4.20E-07
Total PCBs	1	1.71E-02
Antimony	1	8.36E-01
Arsenic	1	3.16E+00
Barium	1	3.63E+00
Cadmium	1	1.09E-01
Chromium	1	4.88E-01
Lead	1	4.55E-01
Magnesium	1	1.90E+04
Mercury	1	3.66E-02
Nickel	1	5.34E-01
Silver	1	4.71E-02

Note: Constituents not detected in any sample are not listed. Also, these data were not used in quantitative ecological risk assessment.

[a] Only one sample available, therefore UCL and standard deviation were not calculated.

Table G-47
Summary Statistics for Salamander Tissue Samples

Analyte	Sample Size	Mean (mg/kg)	95% UCL (mg/kg)	Standard Deviation
Aldrin	6	2.44E-04	4.46E-04	2.52E-04
alpha BHC	6	5.03E-03	5.98E-03	1.18E-03
beta BHC	6	5.03E-04	8.46E-04	4.29E-04
delta BHC	6	1.21E-03	2.09E-03	1.09E-03
gamma BHC	6	8.64E-04	1.21E-03	4.29E-04
alpha Chlordane	6	1.54E-04	3.19E-04	2.07E-04
gamma chlordane	6	3.00E-03	3.89E-03	1.12E-03
2,4'-DDD	6	9.50E-04	1.40E-03	5.63E-04
4,4'-DDD	6	1.03E-02	1.64E-02	7.58E-03
2,4'-DDE	6	4.78E-03	6.85E-03	2.59E-03
4,4'-DDE	6	1.29E-02	1.68E-02	4.98E-03
2,4'-DDT	6	8.59E-04	2.23E-03	1.72E-03
4,4'-DDT	6	8.09E-04	1.91E-03	1.38E-03
Dieldrin	6	1.49E-03	4.32E-03	3.54E-03
Endrin	6	4.97E-04	1.15E-03	8.11E-04
HCB	6	5.37E-04	6.17E-04	1.01E-04
Heptachlor	6	9.75E-05	1.28E-04	3.77E-05
Mirex	6	3.68E-05	6.48E-05	3.51E-05
cis Nonachlor	6	5.78E-04	1.32E-03	9.27E-04
trans Nonachlor	6	1.90E-04	4.30E-04	2.99E-04
OCDD	6	1.43E-04	2.04E-04	7.63E-05
Oxychlordane	6	2.17E-03	2.57E-03	4.94E-04
2,3,7,8-TCDD	6	1.95E-05	3.03E-05	1.35E-05
2,3,7,8-TCDF	6	8.51E-06	1.19E-05	4.29E-06
Total HpCDDs	6	3.85E-05	5.60E-05	2.18E-05
Total HpCDFs	6	6.42E-05	8.85E-05	3.03E-05
Total Hx CDDs	6	1.70E-04	2.16E-04	5.66E-05
Total HxCDFs	6	1.15E-04	1.98E-04	1.04E-04
Total PCBs	6	3.32E-02	4.10E-02	9.81E-03
Total PeCDDs	6	4.08E-05	6.34E-05	2.83E-05
Total PeCDFs	6	2.08E-02	3.07E-02	1.25E-02
Antimony	6	1.33E-01	1.52E-01	2.42E-02
Arsenic	6	1.21E-01	1.67E-01	5.78E-02
Barium	6	2.96E+00	4.14E+00	1.47E+00
Cadmium	6	1.50E-02	1.94E-02	5.48E-03
Chromium	6	1.34E+00	2.18E+00	1.05E+00
Lead	6	3.03E-01	5.97E-01	3.67E-01
Mercury	6	7.83E-03	9.82E-03	2.48E-03
Nickel	6	6.30E-01	1.13E+00	6.30E-01
Silver	6	2.40E-01	4.09E-01	2.11E-01

Note: Constituents not detected in any sample are not listed. Also, No ecological risk was calculated for salamanders due to lack of toxicity data available within the same taxonomic class.

(a) Sample set consisted of the following: 4- adult salamanders, 1-three salamander livers/kidneys, 1- three salamander tails.

UCL = Upper Confidence Limit

APPENDIX H

Toxicological Profiles

Toxicity Profiles for the
Human Health Risk Assessment

Toxicity profiles of the COPCs evaluated for the Human Health Risk Assessment are presented in Appendix G of the 1993 Risk Assessment Report (Radian, 1993a).

Toxicity Profiles for the Ecological Risk Assessment

Table H-1
Toxicological Profile for Aldrin

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Aldrin						
Rat		oil-gavage	one time	death	39 mg/kg/day = LD_{50} for males; 60 mg/kg/ day = LD_{50} for females	1
Hamster		oil-gavage	one time at gestation days 7, 8 or 9	Increased fetal mortality	LOAEL = 50 mg/kg/day	1
Mouse		gavage	5 days, one time/day	decreased male fertility	LOAEL = 0.5 mg/kg/day	1
Rat		oral-food	31 months	decreased lifespan in females	LOAEL = 2.5 mg/kg/day	1
Rat		oral-food	2 years	increased mortality	LOAEL = 5 mg/kg/day	1

In 1970, the U.S. Department of Agriculture canceled all uses of dieldrin and aldrin based on the concern that these chemicals could cause severe aquatic environmental change and potentially carcinogenicity. Aldrin is readily converted to dieldrin by epoxidation in all aerobic and biologically active soils. Dieldrin persists because it is more resistant to biotransformation and abiotic degradation than aldrin. Transport of aldrin and dieldrin in soils is minimal because these compounds tend to bind tightly to soil, however, they both can volatilize from soil. Aldrin undergoes photolysis to dieldrin, which in turn may be degraded by ultraviolet radiation or microbial action into the more persistent photodieldrin. The logarithm of the n-octanol/water partition coefficient (log K_{ow}) for aldrin ranges from 5.68 to 7.4 and for dieldrin ranges from 4.32 to 6.2 indicating a high potential for bioaccumulation. Dieldrin is extremely nonpolar and therefore, has a strong affinity for organic matter such as animal fat and plant waxes; it also sorbs tightly to soil particles. Dieldrin bioconcentrates and biomagnifies through the terrestrial and aquatic food chains.

Exposure to aldrin is limited because aldrin is broken down very quickly to dieldrin in the environment (1). Acute lethal dose for aldrin range from 20-70 mg/L. Lowest dietary level that resulted in some mortality in short-term or chronic feeding studies in common mammalian species: mice (10 ppm), dogs (10 ppm), and rabbits (80 ppm). The most sensitive criteria of an effect is increased liver/body ratio and histological changes in the liver (3). Decreased survival in animals consuming aldrin and/or dieldrin over long periods of time was seen at low doses. Dogs and mice appear to have a sensitivity to the chronic lethal effects of aldrin and/or dieldrin that is similar to that of rats. Decreased survival in dogs exposed for 25 months was observed at 1 mg/kg/day aldrin or 0.5 mg/kg/day of dieldrin (1). 2.5 mg/kg of dieldrin fed to rats produced an increased liver size in both sexes. The same dietary level reduced the number of pregnancies, influenced the numbers of young/litter and slightly reduced survival times of the litters (4). Dieldrin has been identified as a cause of death for several species of birds, including bald eagles, in the Chesapeake Bay region. An estimated 15% of the barn owl population nesting in offshore duck blinds on the Maryland side of the lower Potomac River in 1972 and 1973 contained levels of organochlorines, mostly DDE and dieldrin, which may have been high enough to harm their reproduction (2).

References:

1. Agency for Toxic Substance and Disease Registry (ATSDR). Toxicological Profile for Aldrin/Dieldrin. 1991.

2. Heinz, G.H. and S.N. Wiemeyer. "Effects of contaminants on birds." In: Funderburk, S.L., J.A. Mihursky, S.J. Jordan, and D.Riley (Eds.). Habitat Requirements for Chesapeake Bay Living Resources, 2nd Edition. Living Resources Subcommittee, Chesapeake Bay Program. Annapolis, MD. pp. 23.1-23.9, 1991.

3. Casarett and Doull's Toxicology, The Basic Science of Poisons, 3rd edition. Klaassen, C.D., Amdur, M.O., Doull, J. (Eds.). Macmillan Publishing Company, New York, 1986.

4. ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices, 5th edition, Cincinnati, Ohio. 19868.

5. Nebeker, A.V., Griffis, W.L., Stutzman, T.W., Schuytema, G.S., Carey, L.A., and S.M. Scherer. "Effects of Aqueous and Dietary Exposure of Dieldrin on Survival, Growth and Bioconcentration in Mallard Ducklings" Envrion. Tox. Chem. Vol 11. pp 687-699, 1992.

6. Tucker, R.K. and M.A. Haegele "Comparative Acute Oral Toxicity of Pesticides to Six Species of Birds." Tox. & Appl. Pharm. 20: 57-65 1971.

Table H-2
Toxicological Profile for Antimony

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Antimony						
Rat		Inhalation	63-78 days 4 hours/day	Difficulty conceiving Decreased number of offspring	LOAEL = 209 mg/m^3	1
Rat		Water	746-1342 days	Decreased lifespan	LOAEL = 2 ppm	1
Rat		Inhalation	52 weeks 7 hours/day 5 days/week	Lung neoplasms	LOAEL LEL = 4.2 mg/m^3	1
Rat		Gavage - Water	1 day	Decreased survival	LOAEL = 300 mg/kg/day	1

Antimony is naturally occurring in the earth's crust but is also released in manufacturing, processing and antimony using facilities. Metal smelting, refining, and coal-fired power plants represent most releases. Releases are generally due to volatilization during combustion and can travel far from the original source once airborne. Antimony does not appear to bioconcentrate appreciably in fish and aquatic organisms. Bioconcentration factors range from 0.15 to 390. A study of moles, shrews, rabbits and invertebrates indicated that antimony does not magnify from lower trophic levels in the food chain. (1)

References:

1. Agency for Toxic Substances and Disease Registry (ATSDR). Toxicological Profile for Antimony. October 1990.

Table H-3
Toxicological Profile for Arsenic

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Arsenic						
Rat		gavage	1 day	death	LD_{50} = 23 mg/kg/day (females)	1
Rabbit		gavage-water	1 day	death	LD_{50} = 50 mg/kg/day	1
Dog		gavage-water	1 day	death	LD_{50} = 15 mg/kg/day	1
Rat		gavage-water	gestation days 7-16	33% mortality of fetuses and 14% of dams	LOAEL = 27.2 mg/kg/day	1
Mouse		gavage-water	19 days (3 days/week)	reduced male fertility	LOAEL = 55 mg/kg/day	1
Pig		food	30 days	seizures in 100% of animals	LOAEL = 0.87 mg/kg/day	1
Marbled salamander		As^{+3}	8 days	death and malformations in developing embryos	EC_{50} = 4.5 mg/L	2
Mallard		sodium arsenate		death	LD_{50} = 323 mg/kg BW (oral acute value)	2,4
California quail		sodium arsenate	single oral dose	death	LD_{50} = 47.6 mg/kg BW	2
Cow		arsenic trioxide	single oral dose	death	15-45 grams/animal	2
Dog		sodium arsenite		death	50-150 mg	2
Guinea pig		diet as arsanilic acid	25-30 days	blindness and optic disc atrophy	350 mg/kg	2
Hamster		arsenate		fetal mortality	5 mg/kg BW	2

Table H-3
(Continued)

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Arsenic						
White-tailed deer		sodium arsenate		death	34 mg/kg BW	2
Rats	0,15,31, 62, 125 or 250 mg	diet as sodium arsenite	2 years	decreased survival and body weight		3
mice	5 μg/ml	drinking water as sodium arsenite	2 years	decreased survival rates and longevity		3

Arsenic is a relatively common element and is present in air, water, soil, plants and in all living tissues. The major uses of arsenic are in the production of herbicides, insecticides, desiccants, wood preservatives and growth stimulants for plants and animals. Arsenic is a teratogen and carcinogen that can traverse placental barriers and produce fetal death and malformations in many species of mammals. There is, however, evidence that arsenic is nutritionally essential and/or beneficial. Arsenic deficiency effects, such as poor growth, reduced survival, and inhibited reproduction, have been recorded in mammals fed diets containing < 0.05 mg/kg arsenic, but not those fed diets with 0.35 mg/kg. Arsenic is bioconcentrated by organisms, but is not biomagnified in the food chain.
Arsenic exists in four oxidation states, as inorganic or organic forms. In general, inorganic arsenic compounds are more toxic than organic compounds, and trivalent species are more toxic than pentavalent species. Sodium arsenate is the most prevalent environmental form in fresh water (4). Arsenic may be absorbed by ingestion, inhalation, or through permeation of skin or mucous membranes; cells take up arsenic through an active transport system normally used in phosphate transport. Inorganic arsenicals are oxidized in vivo, bimethylated, and usually excreted rapidly in the urine, but organoarsenicals are usually not subject to similar transformations. The mechanisms of arsenic toxicity differ greatly among chemical species, although all appear to cause similar signs of poisoning. Acute or subacute arsenic exposure can lead to elevated tissue residues, appetite loss, reduced growth, loss of hearing, dermatitis, blindness, degenerative changes in liver and kidney, cancer, chromosomal damage, birth defects and death. Death or malformations have been documented at single oral doses of 2.5 to 33 mg/kg BW, at chronic dose of 1 to 10 mg/kg BW and at dietary levels >5 and <50 mg/kg diet.

Bioconcentration:

Bioconcentration factors (BCF) experimentally determined for arsenic in aquatic organisms are, except for algae, relatively low. The BCF values for inorganic AS^{+3} in most aquatic invertebrates and fish exposed for 21 to 30 days did not exceed 17x; the maximum was 6x for As^{+5}, and 9x for organoarsenicals (2). In general, the BCFs for arsenic in aquatic organisms have been determined to vary from 333-6000 (3). Terrestrial plants may accumulate arsenic by root uptake from the soil or by absorption of airborne arsenic deposited on the leaves, and certain species may accumulate substantial levels (1).

References:

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2. Eisler, R. Arsenic hazards to Fish, Wildlife, and Invertebrates: a Synoptic Review. U.S. Fish Wildl. Serv. Biol. Rep. 85 (1.12) 1988.

3. Health Effects Assessment for Arsenic. EPA/540/1-86/020, September 1984.

4. Camardese, M.B., Hoffman, D.J., LeCaptain, L.J., and G.W. Pendleton. "Effects of Arsenate on Growth and Physiology in Mallard Ducklings" Envir. Tox. Chem. Vol. 9, pp 785-795, 1990.

Table H-4
Toxicological Profile for alpha, beta, and delta-BHC

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
alpha, beta and delta-BHC						
Rat	34 mg/kg/day	Oral	24 wk	Liver cell hypertrophy.	Not Specified	1
Rat	0.69-1100 mg/kg/day	Oral	Lifespan	Reduced weight gain, increased mortality, and chronic nephritis at 800 mg/kg. Fatty degeneration and centrilobular liver necrosis at higher doses.	Not Specified	1
Mouse	70 mg/kg/day	Oral	26 wk	Histologically benign liver tumors.	Not Specified	2
Mouse	35 mg/kg/day	Oral	32 wk	Hepatomas	Not Specified	3
Mouse	12-58 mg/kg/day	Oral	24 wk	Hepatocellular carcinomas, liver nodular hyperplasia.	Not Specified	3
Mouse	29 mg/kg/day	Oral	24 wk	Hepatocellular carcinomas and/or nodular hyperplasia.	Not Specified	4
Rat		oral-food	72 wk	Hepatocellular carcinoma.	LOAEL=50 mg/kg/day	5
Rat		oral-food	13 weeks as beta	decreased weight gain	LOAEL = 12.5 mg/kg/day	6
Mouse		oral-food	30 days as beta	decreased cell-mediated immunity	LOAEL = 39 mg/kg/day	6
Rat		oral-food	13 weeks as beta	atrophy of uterus, ovary, testes	LOAEL = 12.5 mg/kg/day	6
Mouse		oral-food	24 weeks as alpha	hepto-cellular carcinoma	LOAEL = 65 mg/kg/day	6
Rat		oral-food	7 weeks as tech	decreased sperm count	LOAEL = 50 mg/kg/day	6
Guppy/Medaka		medium	3 months	estrogenic activity	32 μg/L	7

Table H-4
(Continued)

Technical-grade BHC has been shown to be well absorbed in the gastrointestinal tract of animals. The toxicity of the isomers varies. With respect to acute exposure, γ BHC (lindane) is the most toxic, followed by α-, δ-, and β-BHC. However, on chronic exposure β-BHC is the most toxic followed by α-, γ-, and δ-BHC. With chronic exposures, the increased toxicity of β-BHC is probably due to its longer half-life in the body and its accumulation in the body with time. The excretion of BHC isomers is primarily through the urine. The primary urinary metabolites are chlorophenols and an epoxide. The conversion occurs mainly by hepatic enzymes. In mice, exposure to 64.6 mg technical grade BHC/kg/day for 3 months led to increased testicular weight and degeneration of seminiferous tubules. α-BHC, β-BHC, γ-BHC and technical-grade BHC have been shown to be liver carcinogens in rats and mice (6). A bioconcentration factor of 1,613 has been calculated for BHC.

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7 Webster, P.W. "Histopathological Effects of Environmental Pollutants β-HCH and Methylmercury on Reproductive Organs in Freshwater Fish" Comp. Biochem > Physiol. Vol 100C. No. 1/2 pp 237-239, 1991.

Table H-5
Toxicological Profile for gamma-BHC (Lindane)

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
gamma-BHC (Lindane)						
Rat		gavage	one time	death	LD_{50} = 88 mg/kg/day	1
Rat		gavage-oil	one time	decreased sexual receptivity	LOAEL = 33 mg/kg/day	1
Rabbit		capsule	5-6 weeks	suppressed antibody response	LOAEL = 1.5 mg/kg/day	1
Rat		oral-food	90 days	disrupted spermatogenesis, testicular atrophy	LOAEL = 75 mg/kg/day	1
Mallard					LD_{50} = >2,000 mg/kg	2
Bobwhite quail		oral	acute		LD_{50} = 120-130 mg/kg	3
Mallard		applied to eggs	one time	death, birth defects, stunded growth	LC_{50} = 74,000 mg/L	4

Lindane is used as an insecticide and as a therapeutic scabicide, pediculicide, and ectoparasiticide for humans and animals. As an insecticide, it is used on fruit and vegetable crops, for seed treatment, in forestry and for animal treatment. EPA no longer permits the use of lindane for purposes involving direct aquatic application. Direct supervision is required for certain applications of lindane on livestock, structures, and domestic pets. Once released into the environment, BHCs can partition to all environmental media. Biodegradation is believed to be the dominant decomposition process for BHCs in soil and water. Lindane can leach from soil to groundwater, sorb to soil particles, or volatilize to the atmosphere. Lindane is bioconcentrated to high levels following uptake from surface waters by a number of aquatic organisms. Bioconcentration factors (BCFs) for lindane from surface waters include 183 in brine shrimp, 319 in rainbow trout fry, 84 in pink shrimp, 490 in sheepshead minnows, and 1,273 in prawns. Lindane and isomers do not undergo biomagnification in terrestrial food chains to a great extent due to metabolism by terrestrial and aquatic organisms.

Technical-grade BHC has been shown to be well absorbed in the gastrointestinal tract of animals. The toxicity of the isomers varies. With respect to acute exposure, γ BHC (lindane) is the most toxic, followed by α-, δ-, and β-BHC. However, on chronic exposure β-BHC is the most toxic followed by α-, γ-, and δ-BHC. With chronic exposures, the increased toxicity of β-BHC is probably due to its longer half-life in the body and its accumulation in the body with time. The excretion of BHC isomers is primarily through the urine. The primary urinary metabolites are chlorophenols and an epoxide. The conversion occurs mainly by hepatic enzymes. Lindane has not been reported to cause fetotoxicity in animals. In mice, exposure to 64.6 mg technical grade BHC/kg/day for 3 months led to increased testicular weight and degeneration of seminiferous tubules. α-BHC, β-BHC, γ-BHC and technical-grade BHC have been shown to be liver carcinogens in rats and mice (1).

References:

1. Agency for Toxic Substance and Disease Registry (ATSDR). Toxicological Profile for alpha, beta, gamma, and delta-Hexachlorocyclohexane. 1992.

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Table H-6
Toxicological Profile for Barium

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Barium						
Rat		gavage-water	one time	death	LD_{50} = 277 mg/kg/day (males), 269 mg/kg/day (females)	1
Mouse		oral-water	2 years	reduced lifespan in males	LOAEL = 0.95 mg/kg/day	1
Rat	18.3 mg/kg/day	oral as $BaCO_3$	conception and gestation	increased mortality of offspring		1

Barium is a naturally occurring component of minerals that are found in small but widely distributed amounts in the earth's crust. Barium enters the environment naturally through the weathering of rocks and minerals. Under natural conditions, barium is stable in the +2 valence state and is found primarily in the form of inorganic complexes (1).

Barium is not mobile in most soils and is not bioaccumulated by plants. It reacts with metal oxides and hydroxides in soil and is subsequently adsorbed onto soil particulates (1). The toxicity of barium compounds depends on their solubility. The soluble compounds are absorbed and small amounts are accumulated in the skeleton. The major route of excretion is the feces (2).
A BCF of 120 has been recorded for plankton (1).

1. Agency for Toxic Substances and Disease Registry (ATSDR). Toxicological Profile for Barium and Compounds. October 1990.

2. Casarett and Doull's Toxicology, The Basic Science of Poisons, Third edition. Klassen. C.D., Amdur, M.O., and J. Doull (Eds.), Macmillan Publishing Co. New York. 1986.

Table H-7
Toxicological Profile for Beryllium

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Beryllium						
Rat		Gavage as BeF_2	1 day	death	LD_{50} = 18.8 mg/kg/day as BeF_2	1
Rat		Gavage as BeF_2, BeO	1 day	death	LD_{50} = 18.3 mg/kg/day	1
Mouse		Gavage-water as $BeSO_4$	1 day	death	LD_{50} = 140 mg/kg/day	
Mouse		Gavage as BeF_2	1 day	death	LD_{50} = 19.1 mg/kg/day	1

Beryllium is a naturally occurring element that is released to the environment by the weathering of rocks and soils. It is also naturally emitted to the atmosphere by windblown dusts and volcanic particles. Fuel oil and coal combustion produce significant emissions. Beryllium is not expected to bioconcentrate or biomagnify in the food chain. Limited mobility in soil is expected due to its tendency to adsorb tightly. Leaching through soil to groundwater is also not expected. A BCF of 19 has been reported in fish (1).

1. Agency for Toxic Substances and Disease Registry (ATSDR). Toxicological Profile for Beryllium. October 1991.

Table H-8
Toxicological Profile for Bis(2-ethylhexyl)phthalate

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Bis(2-ethylhexyl)phthalate						
Rat		Oral-Food	2 weeks	Increased liver weight	LOAEL = 100 mg/kg/d	1
Rat		Oral-Food	2 weeks	Increased liver weight	NOAEL = 25 mg/kg/d	1
Rat		Oral-Food	9 months	Liver alterations	LOAEL = 50 mg/kg/d	1
Hamster		Oral-Food	2 weeks	Increased Liver weight	LOAEL = 1,000 mg/kg/d	1
Guinea Pigs		Oral-Food	1 Year	Increased Liver weight	LOAEL = 19 mg/kg	1
Rat		Single dose	7^{h} day gestation	Decreased fetal weight	LOAEL = 49.3 mg/kg	1
Mice	98.6 mg/Kg	Single dose	7^{h} day gestation	Death, deformations	Not Specified	1
Rat		Oral-Food	0-20 days of gestation	Decreased fetus weight and deformations	LOAEL = 357 mg/kg	1
Mice		Oral-Food	0-17 days of gestation	Major malformations	LOAEL = 91 mg/kg/d	1
Rat		Oral-Food	60 days	Decreased body and testicular weight	LOAEL = 250 mg/kg/d	1
Mice		Oral-Food	105 days	Fertility Suppressed	LOAEL = 13 mg/kg/d	1
Rat		Oral-Food	2 Years	Seminiferous tubule degradation	LOAEL = 674 mg/kg/d	1
Guinea Pigs		Oral-Food	1 Year	Increased liver weight	LOAEL = 19 mg/kg/d	1
Rainbow Trout		Medium	96-hour flow through	Death	LC_{50} = 540 mg/L	2

Table H-8
(Continued)

Bis(2-ethylhexyl)phthalate (DEHP) is a chemical used commonly throughout industry as a plasticizer in flexible PVC products. DEHP enters the environment due to releases (air, water, soils) during production, use and disposal. It is ubiquitous in the environment at low concentrations. It binds strongly to soil and sediment (log K_{ow}=4.88). Biodegradation, is the principle route of environmental degradation ($T_{1/2}$ estimated at several weeks - months). When administered by oral, interperitoneal, intravenous, and inhalation routes, DEHP has a low acute toxicity. Sufficient evidence from experimental animal studies to conclude that DEHP is a carcinogen. Orally administered DEHP has been shown to cause cancer in rats and mice (liver). In rats and mice, DEHP has also been shown to be a developmental toxin. Considerable research has not shown convincing evidence that DEHP is mutagenic in bacterial or mammalian test systems. The EPA has concluded that DEHP is a probable human carcinogen (B2) (1). A bioconcentration factor for DEHP of 1000 has been reported (2).

References:

1. Agency for Toxic Substances and Disease Registry (ATSDR). Toxicological Profile for Di(2-ethylhexyl)phthalate. 1989.

2. Woodward, K.N. Phthalate Esters: Toxicity and Metabolism Volume II. CRC Press, Inc, Boca Raton, Florida 1988.

Table H-9
Toxicological Profile for Boron

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Boron						
Rat		oral - food	2 years	testicular atrophy	LOAEL =58.5 mg/kg/day	1
Dog		oral - food	2 years	testicular atrophy, spermatogenic arrest	LOAEL = 29.25 mg/kg/day	2
Mallard	1000 ppm	oral - food	unspecified	decreased hatching success and survival		3

Boron is a widespread naturally-occurring substance found mainly in sediments and sedimentary rock. It is unlikely that boron is bioconcentrated significantly by organisms from water. The BCFs for boron in plants, fish and invertebrates were estimated to be less than 100 (1).

References:

1. Agency for Toxic Substance and Disease Registry (ATSDR) Toxicological Profile for Boron, 1990.

2. U.S. Environmental Protection Agency (EPA). Integrated Risk Information System (IRIS). 1995.

3. Whitworth, M.R., Pendleton, G.W., Hoffman, D.J., and M.B.Camardese. "Effects of Dietary Boron and Arsenic on the Behavior of Mallard Ducklings." Env. Tox. & Chem. Vol 10, 1991.

Table H-10
Toxicological Profile for Butylbenzylphthalate

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Butylbenzylphthalate						
Rat	12 gram/Kg	Oral	105 Weeks	Myelomonocytic Leukemia	Not Specified	1
Chicken	0.05 gram	Injected into fertilized eggs	Not Specified	No malformations	Not Specified	2
Rat	1.8 g/Kg	Oral	4-8 Weeks	Lethal with toxic splenitis and degeneration of the CNS	Not Specified	3
Rat	2.5 % in diet	Oral	Not Specified	Total body, thymus, and testes weight decreased	Not Specified	4
Rat		Oral	Not Specified	Tumorigenic	TD_{LO} = 433 gram/Kg	5
Rat		Oral	Not Specified	Death	LD_{50} = 2,330 mg/Kg	6
Mouse		Oral	Not Specified	Death	LD_{50} = 4,170 mg/Kg	6
Guinea Pig		Oral	Not Specified	Death	LD_{50} = 1,370 mg/Kg	7
Rat		Oral	Pregnancy, days 5-16	Fetal Death	TD_{LO} = 16.4 gram/Kg	8
Rat	4.9 gram/Kg	Oral	Pregnancy, days 1-7	Post-implantation mortality	Not Specified	9
Shiner Perch		Medium	96 hours flow-through	Death	LC_{50} = 0.46 mg/L	10
Fathead Minnow		Medium	96 hours flow-through	Death	LC_{50} = 1.5 mg/L	10

Butylbenzylphthalate (BBP) is a plasticizing agent used in the production of plastic products. BBP is expected to strongly adsorb to soil (Log K_{ow}=4.77). The most significant fate process in soil is biodegradation. BBP has a low acute toxicity but evidence suggests that it may be carcinogenic in experimental animals.

Bioconcentration:
- Bluegill Sunfish BCF = 663
- Oyster BCF= 116 (11)
- Bluegill BAF = 188 (12)
- BBP is rapidly eliminated from fish and therefore a low level of biomagnification is projected.

References:

1. IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man V29, 197 (1982).

Table H-10
(Continued)

2. IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man V29, 198 (1982).

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10 Woodward, K.N. Phthalate Esters: Toxicity and Metabolism Volume II CRC Press, Inc. Baco Raton, Florida, 1988.

11. Gledhill, W.E. (Monsanto) and G.A. LeBlanc (EF&G Bionomics Inc.) "An Environmental Safety Assessment of Butyl Benzyl Phthalate." Env. Sci. & Tech. 14(301) 1980.

12. Heidloph, B.B., and W.E Gledhill. Bioconcentration, Distribution and Elimination of ^{14}C Santicizer 160 (Butyl Benzyl Phthalate) by Bluegill (*Lepomis macrochirus*). Monsanto Environmental Sciences Report. ES-79-SS-19. 1979.

Table H-11
Toxicological Profile for Cadmium

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Cadmium						
Sheepshead Minnow (*Cyprinodon vareigatus*)	5.8 microg/L	in water	Eggs were exposed for 7.5 days following fertilization	Early hatching	LOAEL = 5.8 microg Cd/L water for 7.5 days	1
Rat		Food	For 10 days, gestation days 6-15	Developmental	NOAEL = 12.5 mg/kg/day	2
Rat		gavage water	For 10 days, gestation days 7-16	Developmental-delayed ossification	LOAEL = 2 mg/kg/day	2
Rat		gavage water	Once a day for 10 days, gestation days 6-15	Developmental-malformations	LOAEL = 18.4 mg/kg/day	2
Rat		gavage water	one dose	Reproductive	NOAEL = 50 mg/kg/day	2
Rat		gavage water	For 10 days, gestation days 7-16	Reproductive-increased resorptions	LOAEL = 2 mg/kg/day	2
Rat		gavage water	Once a day for 10 days	Reproductive-testicular necrosis	LOAEL = 66 mg/kg/day	2
Mouse		gavage water	One dose	Reproductive-testicular necrosis	LOAEL = 60 mg/kg/day	2
Rat		water	Gestation days 0-20	Developmental	NOAEL = 21 mg/kg/day	2
Rat		water	For gestation days 0-21	Developmental-anemia	LOAEL = 1.4 mg/kg/day	2

Table H-11
(Continued)

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Cadmium						
Mouse		water	For gestation days 1-19	Developmental-reduced fetal weight	LOAEL = 1.9 mg/kg/day	2
Rat		gavage water	Once a day for 6-9 weeks	Reproductive-reduced fertility	LOAEL = 1.0 mg/kg/day	2
Rat		food	21-25 days	Reproductive	NOAEL = 19.7 mg/kg/day	2
Plankton (*cyclops viridis*)		medium	96 hours, pH = 7.0	death	LC_{50} = 6.40 ppm	4
Salmo gairdnerii		medium	7 days	death	LC_{50} = 0.01 ppm	3
Mallard	20 ppm	oral - food	90 days	gonad alterations		5
Chicken	60 ppm	oral - food		suppressed egg production		6

Cadmium is an element that occurs naturally in the earth's crust. It is a soft metal when pure, but is not usually found in the environment in this form as it usually combined with other elements. These compounds are solids that may be water soluble but do not evaporate or degrade. Most cadmium used in the U.S. is extracted during the production of other metals and subsequently used in industry and consumer products (ATSDR, 1992).

Cadmium may be released into the environment during combustion of coal and household wastes, and during metal mining and refining. Disposal of waste waters, application of fertilizers, and leaching and spills from hazardous waste sites can lead to cadmium contamination of water. Cadmium may be found as particulates in air. Cadmium does not degrade in the environment, although it may be converted to different forms. It is fairly tenacious once deposited in the environment, but plants, fish, and animals are able to take up cadmium from their environment. A BCF of 2213 has been reported for cadmium in fish (ATSDR, 1992).

References:

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2. Agency for Toxic Substances and Disease Registry (ATSDR). 1992. Toxicological Profile for Cadmium (Draft). U.S. Dept. of Health and Human Services, Atlanta, GA.

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4. Kaviraj, A. and S.K. Konar "Acute Toxicity of mercury, chromium, and Cadmium to Fish, Plankton and Worm." GeoBios 9 (3):97-100 1982.
5. Cain, B.W., Sileo, L., Franson, J.C. and J. Moore. "Effects of Dietary Cadmium on Mallard Duckings" Env. Res. 32:286-297 1983.

6. White D.H. and M.T. Finley. "Uptake and Retention of Dietary Cadmium in Mallard Ducks." Env. Res. 17: 53-59 1978.

Table H-12
Toxicological Profile for Chlordane

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Chlordane						
Largemouth Bass (*Micropterus salmoides*)		medium	96 hours	death	LC_{50} = 3.0 μg/L	1
Fathead minnow (*Pimephales promelas*)		medium	96 hours	death	LC_{50} = 25 - 115 μg/L	1
Sheepshead minnow (*Cyprinodon variegatus*)	0.8 μg/L	medium	96 hours	Reduced hatch during continuous exposure		1
Mallard (*Anas platyrhynchos*)		oral - diet		death	LD_{50} = 709 mg/kg	1
Mouse		gavage - oil	7 days/1 per day	death	LOAEL = 300 mg/kg/day	2
Mouse		oral - food	gestation days 1-19	death of 55% offspring	LOAEL = 8.0 mg/kg/day	2
Rat		oral - food	1 generation	decreased fertility and survivability	LOAEL = 16 mg/kg/day	2

Chlordane is an organochlorine compound first introduced into the United States in 1947 in a variety of formulations for use as a broad-spectrum pesticide. Since 1983, chlordane use in the United States has been prohibited, except for control of underground termites. Technical chlordane consists of about 45 compounds, primarily cis-chlordane (19%), trans-chlordane (24%), heptachlor (10%), cis- and trans-nonachlor (7%), and various chlordane isomers (22%). Chlordane is readily absorbed by warm-blooded animals through skin, diet and inhalation and is distributed throughout the body. Food chain biomagnification is usually low, except in some marine mammals. In most mammals, the metabolite oxychlordane has proven much more toxic and persistent than the parent chemical. Many species of aquatic organisms are adversely affected by concentrations in water between 0.2 and 3.0 μg/L technical chlordane. Sensitive bird species has reduced survival on diets containing 1.5 mg chlordane per kilogram in their diet, or after a single dose as low as 14.1 mg chlordane per kilogram body weight (1).

Chlordane will bioconcentrate in both marine (bioconcentration factor 3,000 - 12,000) and fresh water (bioconcentration factor 18,500 in rainbow trout). The biomagnification from fish to seal was 7.3/4.7 and that between seal and bear was 6.6/9.5 resulting in an overall fish to bear biomagnification factor of 44.2. Chlordane is taken up by rooted aquatic vascular plants both from the water and from the sediment. The bioconcentration factor of chlordane in the submerged vascular plant, *Hydrilla verticillata*, was 1.06. Chlordane also bioconcentrates in the roots from contaminated sediment and translocates into the shoots.

References:

1. Eisler, R. Chlordane Hazards to Fish, Wildlife, and Invertebrates: A Synoptic Review. Fish and Wildlife Service. Contaminant Hazard Reviews Biological Report 85 (1.21) July 1990.

Table H-12
(Continued)

2. Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profile for Chlordane, May 1994.

Table H-13
Toxicological Profile for Chromium

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Chromium						
Rat		gavage	one time as $Cr(No_3)_3 \cdot 9H_2O$ (III)	death	LD_{50} = 200 mg/kg/day (males), 183 mg/kg/day (females)	1
Rat		gavage	one time as $CaCrO_4$ (VI)	death	LD_{50} = 108 mg/kg/day (female), 249 mg/kg/day (male)	1
Mouse		oral-water	19 days as $K_2Cr_2O_7$ (VI)	decreased maternal weight gain	LOAEL = 120 mg/kg/day	1
Rat		oral-water	28 days as Na_2CrO_4 (VI)	decreased motor activity	LOAEL = 98 mg/kg/day	1
Mouse		oral-food	7 weeks as $K_2Cr_2O_7$ (VI)	decreased spermatogenesis	LOAEL = 4.6 mg/kg/day	1
Mouse		oral-food	7 weeks as $Cr_2(SO_4)_3$ (III)	decreased spermatogenesis	LOAEL = 3.5 mg/kg/day	1
American Black Duck	10-50 mg/kg	oral-food	5 months as $CrK(SO_4)_2 \cdot 12H_2O$	reduced survival		4
Chicken (immature)	2,000 mg/kg	oral-diet	21 days as $CrCl_3$	reduced growth		3
Rabbits	1.7 mg/kg BW	daily	6 weeks as Cr^{+3}, and Cr^{+6}	morphological changes in liver		4
Fathead minnow		flow through medium	96 hours as Cr^{+6}	death	LC_{50} = 36.9 mg/L	6
Fathead minnow		medium	96 hours as Cr^{+6}	death	LC_{50} = 5.07 ppm	5
Plankton (*Cyclops viridis*)		medium	pH = 6.0	death	LC_{50} = 92.5 ppm	7

Table H-13
(Continued)

diatomes	0.032 - 0.32 ppm	medium		growth inhibition		5

Chromium is a metallic element with oxidation states ranging from (-II) to (+VI). The important valence states of chromium are (II), (III), and (VI). Elemental chromium (0), does not occur naturally. The divalent state (II) is relatively unstable and is readily oxidized to the trivalent (III) state. Chromium compounds are stable in the trivalent state and occur in nature in this state in ores. In most soils, chromium will be present predominantly in the chromium (III) state. The hexavalent (VI) is the second most stable state. However, hexavalent chromium rarely occurs naturally, but is produced from anthropogenic sources. Chromium released into the environment from combustion processes and ore processing industries is present mainly as insoluble chromium (III) oxide. Chromium in the aquatic phase occurs in the soluble state or as suspended solids adsorbed onto clayish materials, organics, or iron oxides. Speciation in groundwater depends on the redox potential and pH condition in the aquifer. Chromium (VI) predominates under high oxidation conditions; whereas chromium (III) predominates under reducing conditions (1). Chromium (VI) is very soluble in natural water and can readily penetrate biological membranes. Freshwater data indicate that increased water hardness significantly decreases the acute toxicity of chromium (III), but does not affect the toxicity of chromium (VI) (2).

Chromium has a low mobility for translocation from roots to the aboveground parts of plants. Chromium does not bioaccumulate in fish. There is no indication of biomagnification of chromium along the aquatic food chain (1). Chromium (III) is essential in animal nutrition as a constituent of glucose tolerance factor (GTF). Chromium (VI) is rarely found in living systems (3). Oral exposure to chromium (VI) compounds cause severe developmental effects in mice. Exposure of pregnant mice to 57 mg chromium (VI)/kg/day as potassium dichromate in drinking water during gestation resulted in embryolethal effects and gross abnormalities. The incidence and severity of abnormalities increased at higher doses. Maternal toxicity, evidenced by decreased body weight gain, occurred at doses >120 mg Cr(VI)/kg/day. Chromium (III) does not appear to cause fetotoxic or teratogenic effects in rats (1). Teratogenic effects were documented in chicken embryos after eggs had been injected with Chromium (VI). Chromium is associated with mutations and malignancy and under appropriate conditions, chromium is a carcinogenic agent (4).

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Table H-14
Toxicological Profile for Cobalt

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Cobalt						
Rat		gavage-oil	1 day	death	LD_{50} = 91 mg/kg/day	1
Rat		gavage-water	1 day	death	LD_{50} = 161 mg/kg/day	1
Rat		gavage	gestation day 14 to lactation day 21	stunted growth of pups	LOAEL = 5.4 mg/kg/day	1
Rat		oral-food	98 days	testicular degeneration	LOAEL = 13.25 mg/kg/day	1
Rat		oral-food	69 days	testicular atrophy	LOAEL = 20 mg/kg/day	1
Mouse		oral-water	13 weeks	testicular degeneration	LOAEL = 5.7 mg/kg/day	1

The sources of cobalt in the environment are both natural and man-made. Natural sources are soil and natural dust, seawater spray, volcanic eruptions, forest fires and other continental and marine biogenic emissions. Primary anthropogenic sources include fossil fuel burning, vehicular and aircraft exhaust, processing of cobalt and cobalt-containing alloys, copper and nickel smelting and refining. The fate of cobalt in the atmosphere depends on the nature of speciation, particle size, and density of the particles. In most waters, sediment is the primary repository for cobalt.

Cobalt appears not to significantly bioaccumulate in benthic bottom feeders in comparison to its concentration in sediment. The bioaccumulation of cobalt ranged from 100 to 4,000 in marine fish and 40-1,000 in freshwater fish. There is little biomagnifaction of cobalt in animals of higher trophic levels. The mobility of cobalt in soil depends on the nature of the soil; it is increased by chelating/complexing agents, ph, and redox potential. Cobalt may leach from soil to groundwater under a combination of these favorable conditions. In most soils, the transfer of cobalt from soil to plants is not appreciable (1).

Cobalt is a dietary essential for ruminants, which use it for synthesis of vitamin B_{12}. Nonruminants poses only limited capacity to use the mineral to synthesize the vitamin. Signs of toxicosis in ruminants are reduced feed intake, emaciation, anemia, debility, increased hemoglobin and packed cell volume, and elevated liver cobalt. Toxic levels appear to be at least 300 times the requirement (2). Polycythemia is the characteristic response of most mammals to ingestion of excessive amounts of cobalt (3).

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Table H-15
Toxicological Profile for Copper

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Copper						
Rat		oral-food	2 weeks	Death in weanling rats	LOAEL = 300 mg/kg/d	1
Rat		oral-food	2-15 weeks	Chronic Hepatitis	LOAEL = 300 mg/kg/d	1
Mink		oral-food	50 weeks	Increased Mortality	LOAEL = 3.2 mg/kg/d	1
Mouse		oral-water	850 days	Decreased Survival	LOAEL = 42.5 mg/kg/d	1
Sheep-Ewes	50 mg	subcutaneous	Single dose	3% mortality within 24-72 hours		2
Cattle	300 ppm	oral-food	129 days	Hemolytic crisis; icterus hemoglobinuria; death		2
Australian fresh-water shrimp		medium	216 hours	death	LC_{50} = 29 μg/L	6
Fathead minnow		medium, pH 6-6.5		death	LC_{50} = 15 μg/L	7
Fathead minnow		medium	96 hours	death	LC_{50} = 0.48 mg/L	8

Copper and its compounds are naturally present in the environment and background levels should be distinguished from high levels that occur from anthropogenic activity. The physical form of copper is important in considering its behavior in the environment and availability to biota. Most copper in soils is in mineral form or bound tightly to organic matter. Copper deposited in soil will strongly adsorb and remain in the upper few centimeters. Alkaline conditions in soil and water favor precipitation of copper, which may cause deficiencies in plants. Conversely, acid conditions promote solubility and therefore mobility of copper (2). Lower pH concentrate the free ions available and cause copper toxicity at a cellular level, therefore at lower pH levels, bioavailability of copper is increased (7).

Studies have not shown evidence of copper bioaccumulation in the food chain, but disruption of the food chain can be hypothesized. Copper can disrupt important microbial processes in soils, such as nutrient cycling. Certain plant species (lichens and mosses) are especially sensitive to copper and can be eliminated from the ecosystem. Some plants accumulate copper at high levels, with low-growing grasses generally having the highest concentrations and tree foliage the lowest.

Aside for the potential decrease in food supply, there has been little documentation of effects of copper on wildlife, however, effects on domestic animals have been reported (4). It is well recognized that sheep are especially sensitive to toxicity due to copper. In ruminants, dietary levels of other trace elements, such as zinc, affect the toxicity of copper. An antagonism between copper and molybdenum has long been recognized in ruminants. High levels of molybdenum in feed stuff may protect sheep exposed to high levels of copper or may precipitate copper deficiency in animals exposed to marginal levels of dietary copper (3). Molybdenum is used therapeutically in cases of copper toxicosis (2). Toxic effects of copper seen in sheep when copper levels reach 150 ppm (wet-weight) in the liver usually is mortality in > 75% of sheep tested (5). Overt manifestations of copper toxicosis in ruminants are secondary to a hemolytic crisis triggered by severely elevated copper levels. Copper levels below 1 ppm in waters inhabited by fish are toxic. Chronic dietary copper levels of 26-38 ppm for sheep can markedly elevate hepatic copper levels, whereas levels of 500 ppm copper in rat diets are well tolerated (2).

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Table H-15
(Continued)

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Table H-16
Toxicological Profile for 4,4-DDT

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
4,4-DDT						
Mouse		oral	70 wks	development-decreased survival	LOAEL=13 mg/kg/d	6
Rabbit		oral		Death	LD50=300 mg/kg	7
Dog		oral	5 days/wk for 14 months	Reproductive-maternal and fetal death	LOAEL=12 mg/kg	6
Japanese quail	500 ppm 700 ppm	diet		No eggs hatched No eggs laid		7
Rat		Gavage	one time	Death	LD_{50} = 113 mg/kg/day	1
Mouse		oil-gavage	one time	Death	LD_{50} = 1466 mg/kg/day	1
Mouse		oil-gavage	one time	Death	LD_{50} = 810 mg/kg/day	1
Mouse		oral-food	3-12 weeks	decreased IgM antibody titer	LOAEL = 13 mg/kg/day	1
Rat		oral-food	2 generations	decreased fertility	LOAEL = 0.35 mg/kg/day	1
Rat		oral-food	36 weeks	sterility	LOAEL = 7.5 mg/kg/day	1
Mouse		oral-food	15-30 weeks	increased liver hepatomas	LOAEL = 32.5 mg/kg/day	1
Mouse		oral-food	70 weeks	decreased survival	LOAEL = 13 mg/kg/day	1
Dog		oral-food	5 days/week for 14 months	maternal and fetal death	LOAEL = 12 mg/kg/day	1
Aquatic organisms	0.001 μg/L	medium	chronic	unspecified		11
Sheep	250 ppm	oral	10-16 weeks	increased hepatic microsomal enzyme activity		2

Table H-17
Toxicological Profile for 4,4-DDE

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
4,4-DDE						
Rat		gavage	one time	death	LD_{50} = 880 mg/kg/day	1
Mouse		oil-gavage	one time	death	LD_{50} = 810 mg/kg/day	1
Mouse		food	78 weeks	liver carcinomas	19 mg/kg/day	1
Rat		oral	one time	death	LD_{50}=880mg/kg/d	8
Hamster		gavage	128 weeks	adrenal tumors	41.5 mg/kg/day	1
Lesser Kestrel		environmental		reproductive	NOAEL in eggs=5ppm	9
American Sparrow Hawk		diet	eggs laid in the 2nd yr of experiment were examined	reproductive-10% decrease in shell thickness	2-8 ppm in eggs	7
Ringed turtle dove	20-30mg total	diet	3 wks, starting 6 wks before pairing	reproductive-decrease in various reproductive endpoints such as reproductive performance.		10
Bald Eagle		trophic	lifetime	reduced reproduction	> 5 mg/kg in egg	4
Cooper's Hawk		trophic	lifetime	egg breakage	> 5 mg/kg	4
Bald Eagle		trophic	lifetime	successful reproduction	NOEL = 2 mg/kg in egg	5
Bald Eagle		trophic	lifetime	15% eggshell thinning	16 μg/g in egg	6

Table H-18
Toxicological Profile for 4,4'-DDD

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
4,4'-DDD						
Rat		gavage	one time	death	LD_{50} > 4000 mg/kg/day	1
Rat		oral		Death	LD_{50}=113 mg/kg	8
Mouse		oil-gavage	one time	death	LD_{50} = 1466 mg/kg/day	1
Rabbit		oral	one time	death	LD_{50}=1200 mg/kg	1
Dog		capsule	36-150 days	adrenal necrosis	50 mg/kg/day	1
Rat		food	78 days	thyroid adenomas, carcinomas	85 mg/kg/day	1

DDT was used extensively as a pesticide and for vector control until its ban in the U.S. in 1972. DDT and its primary metabolites, DDE and DDD, are man-made chemicals and are not none to occur naturally in the environment. The p,p'-isomer of DDT is the most prevalent in the environment (85%) with the o,p'-isomer accounting for the remaining 15%. DDT, DDE and DDD bind to soil and sediment as predicted by their organic carbon partition coefficients (K_{oc}) of $2.4x10^5$, $4.4x10^6$ and $7.7x10^5$ for DDT, DDE and DDD respectively. DDT, DDE and DDD are highly lipid soluble with log octanol-water partition coefficients (log K_{ow}) of 6.19, 7.00, and 6.20 respectively. This lipophilic property, combined with an extremely long half-life, has resulted in bioaccumulation. Biomagnification of residues may result in high levels of residues in organisms at the top of the food chain as has been documented with fish-eating birds (3). The steady-state bioconcentration factor in rainbow trout is estimated to be 12,000. Because of the extensive past use of DDT worldwide and the persistence of DDT and its metabolites, these materials are virtually ubiquitous and are continually being transformed and redistributed in the environment (1).

DDT produces embryotoxicity and fetotoxicity but not teratogenicity in animals. Intermediate oral exposure to DDT in animals has been shown to produce developmental effects such as infertility, mortality, and slow development. The reproductive capability of both males and females is adversely affected by DDT. DDT enhances the metabolism of estrogen. This creates an endocrine imbalance that affects the egg-laying and nesting cycle in birds in such a way that total reproductive success and survival of young during the nesting season may be reduced (3). DDE is far more persistent then DDT or DDD in birds, having a half-life in excess of 200 days. DDE has been significantly correlated with reduced eggshell thickness and brood sizes of ospreys, bald eagles and some species of falcons (4). Rat study with simultaneous exposure of DDT (7ppm), aldrin (5ppm), endrin (5ppm) or heptachlor (5ppm) increased the adverse effects on conception rate and pup survival, but effects appeared less than additive. Carcinogenicity has been shown in some laboratory animals (2).

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Table H-19
Toxicological Profile for Dieldrin

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Dieldrin						
Rat		Gavage-oil	One time	Death	LD_{50}= 168 mg/kg/day for newborn	1
Rat		Gavage-oil	One time	Death	LD_{50} = 37 mg/kg/day for young adult	1
Mouse		Oral-food	Two weeks	Impaired antigen processing	LOAEL = 0.065 mg/kg/day	1
Rat		Gavage-oil	10 days, once per day; GD 7-16	Maternal mortality	LOAEL = 6 mg/kg/day	1
Mouse		Oral-food	74 days	Increased mortality	LOAEL = 2.6 mg/kg/day	1
Mouse		Oral-food	74 days	Increased pup mortality	LOAEL = 0.65 mg/kg/day	1
Mouse		Oral-food	74 days	Decreased fertility	LOAEL = 1.3 mg/kg/day	1
Mouse		Oral-food	120 days	Decreased litter size	LOAEL = 0.65 mg/kg/day	1
Bald eagle		Trophic	Lifetime	Successful reproduction	NOEL = 0.3 mg/kg of egg	2
Mallard duckling		Oral-food	24 days	Growth impairment	NOEL = 0.3 mg/kg	5
Freshwater aquatic organism			Chronic	Protection of aquatic life	AWQC = 0.0019 μg/L	9
Mallard				Death	LD_{50} = 381 mg/kg	8
Saltwater aquatic organism			Chronic	Protection of aquatic life	AWQC = 0.0019 μg/L	9

Table H-19
(Continued)

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Dieldrin						
Fulvous whistling duck				Death	LD_{50} = 100-200 mg/kg	8
California quail				Death	LD_{50} = 8.78 mg/kg	8
Japanese quail				Death	LD_{50} = 69.7 mg/kg	8
Pheasant				Death	LD_{50} = 79.0 mg/kg	8
Gray partridge				Death	LD_{50} = 8.84 mg/kg	8
Rock dove				Death	LD_{50} = 26.6 mg/kg	8
House sparrow				Death	LD_{50} = 47.6 mg/kg	8
Mule deer				Death	LD_{50} = 75-150 mg/kg	8
Domestic goat				Death	LD_{50} = 100-200 mg/kg	8
Rainbow trout				Death	LC_{50} = 0.0025 mg/L	5
Mallard				Death	LD_{50} = 380 mg/kg	6
Amphipod *(H. azteca)*		Medium	10 days	Death	LC_{50} = 7.6 μg/L	7
Chironomid *(C. tentans)*		Medium	10 days	Death	LC_{50} = 1.1 μg/L	7
Meadow vole					NOAEL = 0.04 mg/kg/day	10
Red fox					NOAEL = 0.139 mg/kg/day	10
American robin					NOAEL = 0.139 mg/kg/day	10

Table H-19
(Continued)

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Dieldrin						
Great blue heron					NOAEL = 0.045 mg/kg/day	10
Cooper's hawk					NOAEL = 0.079 mg/kg/day	10
Red-tailed hawk					NOAEL = 0.058 mg/kg/day	10
Aldrin						
Rat, male		Gavage-oil	One time	Death	LD_{50} = 39 mg/kg/day	1
Rat, female		Gavage-oil	One time	Death	LD_{50} = 60 mg/kg/day	1
Fulvous whistling duck				Death	LD_{50} = 89.2 mg/kg	8
Mallard				Death	LD_{50} = 520 mg/kg	8
Bobwhite				Death	LD_{50} = 6.59 mg/kg	8
Pheasant				Death	LD_{50} = 16.8 mg/kg	8
Mule deer				Death	LD_{50} = 18.8 mg/kg	8
Hamster		Gavage-oil	One time at GD 7, 8, or 9	Increased fetal mortality	LOAEL = 50 mg/kg/day	1
Mouse		Gavage	Five days, one time/day	Decreased male fertility	LOAEL = 0.5 mg/kg/day	1
Rat		Oral-food	31 months	Decreased lifespan in females	LOAEL = 2.5 mg/kg/day	1
Rat		Oral-food	Two years	Increased mortality	LOAEL = 5 mg/kg/day	1

Table H-19
(Continued)

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Aldrin						
Meadow vole					NOAEL = 0.396 mg/kg/day	10
Red fox					NOAEL = 0.086 mg/kg/day	10
Marine organisms			Acute		AWQC = 0.0013	9

In 1970, the U.S. Department of Agriculture canceled all uses of dieldrin and aldrin based on the concern that these chemicals could cause severe aquatic environmental changes and potential carcinogenicity. Aldrin is readily converted to dieldrin by epoxidation in all aerobic and biologically active soils. Dieldrin persists because it is more resistant to biotransformation and abiotic degradation than aldrin. Transport of aldrin and dieldrin in soils is minimal because these compounds tend to bind tightly to soil; however, they both can volatilize from soil. Aldrin undergoes photolysis to dieldrin, which in turn may be degraded by ultraviolet radiation or microbial action into the more persistent photodieldrin. The logarithm of the n-octanol/water partition coefficient (log K_{ow}) for aldrin ranges from 5.68 to 7.4 and for dieldrin ranges from 4.32 to 6.2, indicating a high potential for bioaccumulation. Dieldrin is extremely nonpolar and therefore has a strong affinity for organic matter such as animal fat and plant waxes; it also sorbs tightly to soil particles. Dieldrin bioconcentrates and biomagnifies through the terrestrial and aquatic food chains.

Exposure to aldrin is limited because aldrin is broken down very quickly to dieldrin in the environment (1). The acute lethal dose for aldrin ranges from 20-70 mg/L. The lowest dietary levels that resulted in some mortality in short-term or chronic feeding studies in common mammalian species were: mice (10 ppm), dogs (10 ppm), and rabbits (80 ppm). Increased liver/body ratio and histological changes in the liver were the most sensitive effect criteria noted (3). Decreased survival in animals consuming aldrin and/or dieldrin over long periods of time was seen at low doses. Dogs and mice appear to have a sensitivity to the chronic lethal effects of aldrin and/or dieldrin that is similar to that of rats. Decreased survival in dogs exposed for 25 months was observed at 1 mg/kg/day aldrin or 0.5 mg/kg/day of dieldrin (1). 2.5 mg/kg of dieldrin fed to rats produced an increased liver size in both sexes. The same dietary level reduced the number of pregnancies, influenced the numbers of young/litter and slightly reduced survival times of the litters (4). Dieldrin has been identified as a cause of death for several species of birds, including bald eagles, in the Chesapeake Bay region. An estimated 15% of the barn owl population nesting on offshore duck blinds on the Maryland side of the lower Potomac River in 1972 and 1973 contained levels of organochlorines, mostly DDE and dieldrin, which may have been high enough to harm their reproduction (2).

Bioaccumulation:
Dieldrin
- Earthworm BAF (dieldrin) = 8 (11)

Bioconcentration:
Dieldrin
- Alga BCF = 7,480
- Ciliate *(Tetrahymena pyriformis)* BCF = 2,095
- Clam BCF = 1,015
- Crab BCF = 247
- Fish BCF = 6,145
- Snail BCF = 114,935
- Water plant *(Elodea)* BCF = 1,280

Aldrin
- Fish BCF = 3,140
- Snail BCF = 44,600

Table H-19
(Continued)

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10. Oak Ridge National Laboratory, Environmental Sciences and Health Sciences Research Division. 1994. *Screening Benchmarks for Ecological Risk Assessment.* Oak Ridge, Tn.
11. Beyer, W.N. 1990. Evaluating soil contamination. *U.S. Fish Wildl. Serv. Biol. Rep.* 90(2).

Table H-20
Toxicological Profile for Diethylphthalate (DEP)

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Diethylphthalate (DEP)						
Mouse		Oral - Food	Chronic	14% decrease in # of pups born to parents	LOAEL = 3,250 mg/kg/day	1
Rat		Intraperitoneal injection	7 days	Death	LD_{50} = 5.05 ml/kg	2
Sheepshead minnow		Medium	96 hour static	Death	LC50 = 30 mg/L	3

Environmental Fate:

- Log K_{ow} = 1.4 - 3.3
- Log K_{oc} = 2.65
- Vapor Pressure at 25°C = 1.65×10^{-3}
- Henry's Law Constant = 7.8×10^{-7} mmHg

Bioconcentration:

- BAF = 161(3)

References:

1. Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profile for Diethylphthalate, 1993.
2. Singh, A.R., Lawrence, W.H., and J. Autian "Teratogenicity of Phthalate Esters in Rats" J. of Pharm. Sci. 61(1):51-55, 1972.
3. Woodward, K.N. Phthalate Esters: Toxicity and Metabolism CRC Press, Inc. Boca Raton, Fl. 1988.

Table H-21
Toxicological Profile for Di-n-Butylphthalate (DBP)

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Di-n-Butylphthalate (DBP)						
Rat		Gavage	Single dose	2/10 deaths	LOAEL = 10 g/Kg	1
Rat		Gavage	Single dose	4/9 deaths	LOAEL = 8 g/Kg	1
Mouse		Gavage	1/day, gestation days 6-13	No viable litters	LD_{10} = 2.5 g/Kg	1
Rat		Oral	7 days	Decreased spermatocytes, testes weight	LOAEL = 1,000 mg/Kg/day	1
Guinea Pig		Oral	1/day, 7 days	Severe testicular lesions	LOAEL = 2,000 mg/Kg/day	1
Rat		Oral	52 weeks	Death	LOAEL = 625 mg/Kg	1
Rat		Oral	48 days, including gestation and lactation	Decreased pup weight	LOAEL = 125 mg/Kg	1
Ring doves (*Streptopelia risoria*)	10 ppm	Oral - diet		Reduced eggshell thickness		2
Rainbow trout			Medium	96 hour flow-through	LC_{50} = 1.8 mg/L	2
Fathead minnow			Medium	96 hour flow-through	LC_{50} = 0.92 mg/L	2

Di-n-butylphthalate (DBP) is a plasticizer used in epoxy resins and polyvinyl chloride production. DBP adsorbs moderately to soils (log K_{ow}=5.60, log K_{oc}=5.23). Biodegradation from soils is expected to be slow while biodegradation from aquatic systems is expected to be rapid. DBP has a relatively low acute toxicity in animals. Oral exposure studies have provided evidence of the ability of DBP to produce testicular damage in experimental animals. Toxic effects have also been demonstrated in female reproductive abilities. DBP has been shown to be toxic to fetuses in several animal studies. Limited experimental data suggests teratogenic activity.

References:

1. Agency for Toxic Substances and Disease Registry (ATSDR). Toxicological Profile for Di-n-Butylphthalate. 1989.

2. Woodward, K.N. Phthalate Esters: Toxicity and Metabolism. CRC Press, Inc., Boca Raton, Florida, 1988.

Table H-22
Toxicological Profile for Dioxin-like Compounds

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Dioxin-like Compounds						
Guinea Pigs		Oral as 2,3,7,8-TCDD	90 day	Death	LD_{50} = 0.008 μg/kg/day	1
Monkeys		Oral as 2,3,7,8-TCDD	9 months	Death (50%)	LD_{50} = 0.01 μg/kg/day	1
Rats		Oral as 2,3,7,8-TCDD	2 years	Toxic hepatitis leading to death	LOAEL = 0.001 μg/kg/day	1
Monkeys		Oral as 2,3,7,8-TCDD	7 months	Spontaneous abortions (66%)	LOAEL = 0.001 μg/kg/day	1
Rabbits		Dermal as 2,3,7,8-TCDD	1 day 1 time	Death	LD_{50} = 275 μg/kg	1
Guinea Pigs		Oral as 2,3,7,8-TCDD	1 day 1 time	Death	LD_{50} = 0.6 μg/kg	1
Rat		Oral - food as 2,3,4,7,8-PCDF	13 weeks	Death	LOAEL = 10 μg/kg/day	3
Monkey		Oral - food as TCDF	6 months	Death	LOAEL = 0.21 μg/kg/day	3
Rat		Oral - food as 2,3,4,7,8-PCDF	13 weeks	Body weight loss	LOAEL = 10 μg/kg/day	3
Rat		Oral - food as CDF mixture	4 weeks	Decreased seminal vesical weight, reduced testosterone	LOAEL = 960 μg/kg/day	3
Mallard				Death	LD_{50} > 0.108 mg/kg	4
Bobwhite				Death	LD_{50} = 0.015 mg/kg	4
Ringed Turtle Dove				Death	LD_{50} > 0.810 mg/kg	4

Table H-22
(Continued)

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Dioxin-like Compounds						
Northern Pike (*Esox lucius*)	0.1 μg/L	Medium as 2,3,7,8-TCDD	96 hours	Growth retardation		5
Mosquitofish	2.4-4.2 μg/L	Medium as 2,3,7,8-TCDD	15 days	Death		5
Chicken				Death	LD_{50} = 25-50 μg/kg	5
Dog					LD_{50} = 100-200 μg/kg/day	5

Polychlorinated dibenzodioxins (CDDs) and polychlorinated dibenzofurans (CDFs) are chemically classified as halogenated aromatic hydrocarbons. The chlorinated dibenzodioxins and dibenzofurnas are tricyclic aromatic compounds with similar physical and chemical properties, and both classes are quite similar structurally. There are 75 possible different positional congeners of CDDs and 135 different CDF congeners. CDDs and CDFs can be formed as unintentional by-products through a variety of chemical reactions and combustion processes. TCDD is an undesirable contaminant of the pesticide 2,4,5-T and trichlorophenol (4). In general, these compounds have low water solubility, high K_{ow}s, low vapor pressure and tend to bioaccumulate. Because of their low water solubilities and vapor pressures, CDDs and CDFs located below the soil surface (i.e., below the top few millimeters) are strongly adsorbed and show little upward or downward migration, particularly in soils with high organic carbon (2).CDDs are bioconcentrated in aquatic organisms and terrestrial animals, but the magnitude of bioconcentration is lower than expected from predictive methods (e.g. Kow). This is due to the fact that some of these compounds are metabolized in aquatic and terrestrial animals (3). Bioaccumulation of CDDs in plants from soils is expected to be small. There is no evidence of biomagnification of PCDDs in birds, but it is speculated that piscivorus birds have a greater potential to accumulate PCDDs than the fish that they eat (5).

2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)
CAS No. 1746-01-6

- Log K_{ow} = 6.15 - 7.28
- Log K_{oc} = 6.0 - 7.39
- Vapor Pressure at 25°C = 1.52×10^{-9} mmHg
- Henry's Law Constant = 8.1×10^{-5} atm-m^3/moL at 25°C(1).
- Water Solubility = 1.93×10^{-5} mg/L at 22°C(2)
- Mosquito fish BCF = 1482
- Molluscs BCF = 3731 (5)

Pentachlorodibenzo-p-dioxin (1,2,3,7,8-PeCDD)
CAS No. 40321-76-4

- Log K_{ow} = 6.64
- Vapor Pressure = 9.48×10^{-10} mmHg at 25°C

Table H-22
(Continued)

Hexachlorodibenzo-p-dioxin (1,2,3,4,7,8-HxCDD)
CAS No. 39227-28-6

- Log K_{ow} = 7.79
- Log K_{oc} = 5.92
- Vapor Pressure = 1.0×10^{-10} mmHg at 25°C
- Henry's Law Constant = 1.2×10^{-5} atm-m^3/moL at 25°C
- Water Solubility = 4,40 x 10^{-6} mg/L at 20°C(2)

Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)
CAS No. 35822-46-9

- Log K_{ow} = 8.20
- Vapor Pressure = 3.21×10^{-11} mmHg at 25°C
- Henry's Law Constant = 7.5×10^{-6} atm-m^3/moL at 25°C.
- Water Solubility = 2.4 x 10^{-6} mg/L at 20°C(2)

Octochlorodibenzo-p-dioxin (1,2,3,4,6,7,8,9-OCDD)
CAS No. 3268-87-9

- Log K_{ow} = 7.59
- Vapor Pressure = 8.25×10^{-13} mmHg
- Henry's Law Constant = 7.0×10^{-9} atm-m^3/moL at 25°C.
- Water Solubility = 7.4 x 10^{-8} mg/L at 25°C(2)

Tetrachlorodibenzofuran (2,3,7,8-TCDF)
CAS No. 51207-31-9

- Log K_{ow} = 6.53
- Vapor Pressure = 8.96×10^{-9} mmHg
- Henry's Law Constant = 8.6×10^{-6} atm-m^3/moL at 25°C.
- Water Solubility = 4.19 x 10^{-4} mg/L at 22.7°C(2)

Pentachlorodibenzofuran (1,2,3,7,8-PeCDF)
CAS No. 57117-41-6

- Log K_{ow} = 6.79
- Vapor Pressure = 2.72×10^{-9} mmHg at 25°C
- Guppy BCF = 2,400 (3)

Hexachlorodibenzofuran (1,2,3,4,7,8-HxCDF)
CAS No. 70648-26-9

- Vapor Pressure = 2.4×10^{-10} mmHg
- Henry's Law Constant = 1.4×10^{-5} atm-m^3/moL at 25°C
- Water Solubility = 8.25 x 10^{-6} mg/L at 22.7°C(2)

Table H-22
(Continued)

Heptachlorodibenzofuran (1,2,3,7,8-HpCDF)
CAS No. 67562-39-4

- Log K_{ow} = 7.92
- Vapor Pressure = 1.33×10^{-10} mmHg at 25°C
- Henry's Law Constant = 5.3×10^{-3} atm-m^3/moL at 25°C.
- Water Solubility = 1.35×10^{-6} mg/L at 22.7°C(2)

Octachlorodibenzofuran (1,2,3,4,6,7,8,9-OCDF)
CAS No. 39001-02-0

- Log K_{ow} = 8.78
- Vapor Pressure = 3.75×10^{-12} mmHg at 25°C
- Henry's Law Constant = 1.9×10^{-6} atm-m^3/moL at 25°C
- Water Solubility = 1.2×10^{-6} mg/L at 25°C(2)
- Guppy BCF = 589 (3)

References:

1. Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profile for 2,3,7,8-Tetrachlorodibenzo-p-dioxin, 1993.

2. U.S. Environmental Protection Agency (EPA) Estimating Exposures to Dioxin-Like Compounds. Volume II: Properties, Sources, Occurrence and Background Exposures. EPA/600/6-88/005Cb. 1994.

3. Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profile for Chlorodibenzofurans. 1994.

4. Hudson, R.H., R.K. Tucker, and M.A. Haegele. Handbook of Toxicity of Pesticides to Wildlife. Second Edition. U.S. Fish and Wildlife Service Resource Publication 153. Washington D.C. 1984.

5. Eisler, R. Dioxin Hazards to Fish, Wildlife, and Invertebrates: A Synoptic Review. U.S. Fish and Wildlife Service. Biological Report 85 (1.8) 1986.

Table H-23
Toxicological Profile for Endosulfan, Endosulfan I, II and Endosulfan Sulfate

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Endosulfan, Endosulfan I, II and Endosulfan Sulfate						
Rat		gavage-oil	one time	death	LD_{50} = 121 mg/kg/day	1
Rat		gavage-oil	7 days	increased liver weight	LOAEL = 2.5 mg/kg/day	1
Rat		gavage-oil	7-15 days	decreased testosterone levels	LOAEL = 5 mg/kg/day	1
Rat		oral-food	84 days	decreased litter weight	LOAEL = 3.75 mg/kg/day	1
Mouse		oral-food	78 weeks	testicular atrophy (males), ovarian cysts (females)	LOAEL (males) = 0.46 mg/kg/day, (females) = 0.26 mg/kg/day	1
Rainbow trout		medium	96 hour static	death	LC_{50} = 1.6 μg/L	2
Mallard		oral		acute	LD_{50} = 205-245 mg/kg	4
Ring-necked pheasant		oral		acute	LD_{50} = 620-1,000 mg/kg	4

Endosulfan is registered in the United States and widely used as a contact and stomach insecticide on over 60 food and non-food crops. Pure endosulfan may be found as two different conformations, α or I and β or II. Technical grade endosulfan consists mainly of these isomers as well as a few impuritites and degradation products. One of these products, endosulfan sulfate, which has similar chemical properities to the pure substance, results from endosulfan's photolysis, biotransformation, or oxidation. Both endosulfan isomers can be readily metabolized to endosulfan sulfate by a variety of organisms.

Endosulfan has been released into the environment mainly as a result of its use as an insecticide. There are no known natural sources of the compound. (3). Endosulfan does not bioaccumulate to high levels in terrestrial or aquatic systems. In aquatic systems, residue levels in fish generally peak within 7 days to 2 weeks after continuous exposure to endosulfan. In terrestrial systems, endosulfan generally is not translocated in plant tissues (1). No toxicity information was found for the environmental fate specific tothe isomers or Endosulfan Sulfate.

Bioconcentration:
- BCF = < 3,000 for endosulfan.
- BCF = 600, 22.5 in mussels for endosulfan.
- BCF = 2,755 in striped mullet for endosulfan (1).
- Endosulfan does not appear to biomagnify in the food chain.
- BCF = 59 in mosquitofish for Endosulfan I

Table H-23
(Continued)

Environmental Fate:

Endosulfan

- solubility in water at 22°C = 0.16 - 0.15 ppm
- Log K_{ow} = 3.55, 3.62
- Log K_{oc} = 3.5
- Vapor Pressure at 25°C = 1×10^{-5} mmHg
- Henry's Law Constant at 25°C = 1.0×10^{-5} atm-m³/moL

Endosulfan I

- solubility in water at 22°C = 0.32 ppm
- Log K_{ow} = 3.83, 3.55
- Vapor Pressure at 25°C = 1×10^{-5} mmHg
- Henry's Law Constant at 25°C = 1.0×10^{-5} atm-m³/moL

Endosulfan II

- solubility in water at 22°C = 0.33 ppm
- Log K_{ow} = 3.52
- Vapor Pressure at 25°C = 1×10^{-5} mmHg
- Henry's Law Constant at 25°C = 1.91×10^{-5} atm-m³/moL

Endosulfan Sulfate

- solubility in water at 22°C = 0.22 ppm
- Log K_{ow} = 3.66
- Vapor Pressure at 25°C = 1×10^{-5} mmHg
- Henry's Law Constant at 25°C = 2.6×10^{-5} atm-m³/moL

References:

1. Agency for Toxic Substance and Disease Registry (ATSDR). Toxicological Profile for Endosulfan, 1990.

2. Sunderam, R.I.M., Cheng, D.M.H., and G.B. Thompson "Toxicity of Endosulfan to Native and Introduced Fish in Australia" Env. Tox. Chem. Vol 11, pp. 1469-1476, 1992.

3. Chandler, G.T., and G.I. Scott "Effects of Sediment-Bound Endosulfan on Survival, Reproduction and Larval Settlement of Meiobenthic Polychaetes and Copepods" Env. Tox. Chem. Vol 10, pp. 375-382, 1991.

4. Worthing, C.R., and S.B. Walker The Pesticide Manual, A World Compendium seventh edition, The British Crop Protection Council, 1983.

Table H-24
Toxicological Profile for Endrin/Endrin Aldehyde

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Endrin/Endrin Aldehyde						
Rat		gavage	one time	death	LD_{50} = 5.6 mg/kg/day (male), 5.3 mg/kg/day (female)	1
Hamster		gavage	gestation days 5-14	maternal mortality	LOAEL = 1.5 mg/kg/day	1
Rat		gavage	gestation days 7-20	reduced weight gain	LOAEL = 0.3 mg/kg/day	1
Mouse		gavage	gestation days 7-17	decreased fetal weight	LOAEL = 1 mg/kg/day	1
Hamster	2.5 mg/kg	oral		fetal deaths, congenital anomalies, growth retardation		2
Rat	50-100 ppm	oral-food	2 years	degenerative liver changes		2
Dog	0.13 mg/kg/day	food	1-19 months	liver, kidney lesions		1
American Toad			96 hour	death	LC_{50} = 10 ppb	3
Mallard					LD_{50} = 5.64 mg/kg	4
Sharp tailed grouse					LD_{50} = 1.06 mg/kg	4
Pheasant					LD_{50} = 1.78 mg/kg	4
Mule deer					LD_{50} = 6.25 - 12.5 mg/kg	4
Goat					LD_{50} = 25.0 - 50.0 mg/kg	4
Fathead minnow		medium	96 hour	reduction in growth	EC_{50} = 0.5 μg/L	7
Fathead minnow		medium	96 hour	death	LC_{50} = 0.7 μg/L	7
Mosquitofish		medium	48 hour	death	LC_{50} = 0.6 ppb	6

Table H-24
(Continued)

Endrin was used as an insecticide, rodenticide and avicide to control cutworms, voles, grasshoppers, borers and other pests on cotton, sugarcane, tobacco, apple orchards and grain. All uses of Endrin in the U.S. have been voluntarily canceled by the manufacturer, Velsicol Chemical Company, in 1986. Endrin aldehyde was never a commercial product, but occurred as an impurity of endrin or as a degradation product. Releases of endrin into the soil as the result of agricultural use have been the principal input into the environment. Endrin tightly binds to soil and leachability is small. Endrin is biodegraded in soil by a large spectrum of soil bacteria. It is persistent in water with about 80% of endrin remaining after incubation for 16 weeks.

Endrin is lethal to animals when sufficiently high doses are administered by oral gavage or in the diet. The minimum lethal dose in monkeys (1 to 3 mg/kg) is lower than minimum lethal doses in cats, rats, rabbits (5 to 7 mg/kg) and male guinea pigs (24 to 36 mg/kg). Meadow and pine mice are susceptible to endrin lethality when exposed in the environment (1). Experimental feeding of endrin to animals has produced abnormalities in offspring (2). Endrin is rapidly metabolized in animals to hydrophilic metabolites which are excreted. Continuous exposure to endrin in diets results in only a limited accumulation in body fat (5). EPA has evaluated the potential carcinogenicity of endrin in animals and determined that no defined potential for cancer exists (1).

Environmental Fate:

Endrin

- solubility in water at 25°C = 0.25 mg/L
- log K^{ow} = 5.338
- log K_{oc} = 3.230
- Vapor Pressure at 25°C = 2.7×10^{-10} mmHg
- Henry's Law Constant = 4.0×10^{-7} atm-m^3/moL

Endrin Aldehyde

- solubility in water at 25° = 50 mg/L
- log K^{ow} = 3.146
- log K_{oc} = 2.826
- Vapor pressure at 25°C = 2.0×10^{-7} mmHg
- Henry's Law Constant = 2×10^{-9} atm-m$^{3/moL}$

References:

1. Agency for Toxic Substance and Disease Registry (ATSDR). Toxicity Profile for Endrin/Endrin Aldehyde, 1986.

2. Dept. of Health and Human Services. (NIOSH) Publication No. 81-123, Sept 1978.

3. Hall, R.J., and D.M. Swineford. "Acute Toxicities of Toxaphene and Endrin to Larvae of Seven Species of Amphibians" Toxicology Letters. Vol 8, pp. 331-336, 1981.

4. Hudson, R.H., Tucker, R.K., and M.A. Haegele. Handbook of Toxicity of Pesticides To Wildlife. U.S. Dept. of the Interior. Fish and Wildlife Service. Resource Publication 153, Washington D.C. 1984.

5. Worthing, C.R., and S.B. Walker. The Pesticide Manual, A World Compendium. The British Crop Protection Council. 1983.

6. Scales, E.H. and J. D. Yarbough Endrin uptake in Insecticde Resistant and Susceptible Mosquitofish (*Gambusia affinis*). J. Agri. Food Chem. Vol 23, No 6 1076 - 1079. 1975.

7. Jarvinen, A.W., Tanner, D.K., and E.R. Kline Toxicity of Chlorpyrifos, Endrin or Fenvalerate to Fathead Minnows following Episodic or Continuous Exposure Ecotox and Envir Safety 15:78-95 1988.

Table H-25
Toxicological Profile for Heptachlor and Heptachlor Epoxide

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Heptachlor and Heptachlor Epoxide						
Rat		oral-food	60 days	16% embryo survival in F1 generation	LOAEL = 0.25 mg/kg/day	1
Rat		oral-food	60 days	fertility decreased by 22% in F1 generation; 100% infertility in F2 generation	LOAEL = 0.25 mg/kg/day	1
Mouse		oral-food	10 weeks, 4 times/day	100% infertility	LOAEL = 6.5 mg/kg/day	1
Rat		oral-food	80 weeks, once/day	20% decrease in survival of females	LOAEL = 2.56 mg/kg/day	1
Rat		oral-food	18 months, once/day	24% decrease in litter size, 57.2% mortality at 1 month	LOAEL = 6 mg/kg/day	1
Mouse		oral-food	90-91 weeks, once/day	hepatocellular carcinoma in males	LOAEL = 1.8 mg/kg/day for males and 2.3 mg/kg/day for females	1
Mallard					LD_{50} > 2080 mg/kg	2
American kestrel	>1.5 mg/kg in egg	trophic	lifetime as heptachlor epoxide	production adversely affected	> 1.5 mg/kg in egg	3
Canada geese	>10 mg/kg in egg	trophic	lifetime as heptachlor epoxide	reduction in hatching success	> 10 mg/kg in egg	3

Heptachlor is a man-made chemical that was used for killing insects in homes, buildings and on food crops. There are no natural sources of heptachlor or heptachlor epoxide. Heptachlor and heptachlor epoxide are described together because 20% of heptachlor is changed within hours into heptachlor epoxide in the environment and in living systems such as animals or humans by microsomal enzymes.

The log soil organic carbon adsorption coefficient (log K_{oc}) for heptachlor is estimated to be 4.34. The log K_{oc} for heptachlor epoxide is estimated to range between 3.34 and 4.37. These log K_{oc} values indicate a very high sorption tendency, suggesting these compounds will adsorb strongly to soil and are not likely to leach into groundwater in most cases. The organic matter content of the soil is another factor affecting mobility. Heptachlor and heptachlor epoxide are less likely to leach from soil with a high organic matter content. If released into water they will adsorb strongly to suspended and bottom sediment. Heptachlor and heptachlor epoxide are taken up by plants through the roots. The logarithm of the n-octanol/water partition coefficient (log K_{ow}) for heptachlor is 5.44 and for heptachlor epoxide is 5.40 indicating a high potential for bioconcentration and biomagnification in the food chain. A bioconcentration factor (BCF) of 20 has been calculated. Heptachlor epoxide is more harmful than heptachlor, primarily because of its ability to be stored in fat for long periods of time. Biomagnification of heptachlor is not significant since heptachlor is metabolized to heptachlor epoxide readily by higher trophic levels. Because of the more persistent nature of heptachlor epoxide and its lipophilicity, biomagnification of heptachlor epoxide in terrestrial food chains is significant.

Table H-25
(Continued)

Animals that ingested heptachlor in food before and/or during gestation had smaller litters, some offspring had damaged eyes, and some offspring did not survive long after birth. Infertility was also observed in studies with rats and mice. Lifetime exposure to heptachlor resulted in liver tumors (1). Heptachlor epoxide does not thin American kestrel eggs. These findings are in agreement with earlier studies of Canada geese. However, the presence of heptachlor epoxide in kestrel eggs indicates food chain contamination (3).

References:

1. Agency for Toxic Substances and Disease Registry (ATSDR). Toxicological Profile for Heptachlor/Heptachlor epoxide. 1991.

2. Hudson, R.H., Tucker, R.K., and M.A. Haegele. Handbook to Toxicity of Pesticides to Wildlife, second edition. U.S. Dept. of the Interior, Fish and Wildlife Service. Resource Publication 153, Washington D.C. 1984.

3. Henney, C.J., Blus, L.J., and C.J. Stafford. "Effects of Heptachlor on American Kestrels in the Columbia Basin, Oregon" J. Wildl. Manage. Vol. 47, No. 4, pp. 1080-1087, 1983.

Table H-26
Toxicological Profile for Hexachlorobenzene

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Hexachlorobenzene						
Rat		Oral - Food	130 weeks	Increased mortality of offspring	LOAEL = 2 mg/kg/day	1
Mouse		Oral - Food	120 weeks	Death	LOAEL = 6 mg/kg/day	1
Hamster		Oral - Food	Lifetime	Death	LOAEL = 16 mg/kg/day	1

Hexachlorobenzene (HCB) is tightly bound to soil and sediments. Very little is dissolves in water. A BCF of 25 has been reported in fish (1).

References:

1. Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profile for Hexachlorobenzene. 1989.

Table H-27
Toxicological Profile for Lead

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Lead						
Rat	10 g/kg	oral-food	2 generations	Decreased pup weights; decreased pups/litter		1
Rat	0,0.5,5,50, 250 mg/L	oral-water	6-7 Weeks Pre-breeding until 6-9 months post partum	Decreased maternal BW and delayed sexual maturation of female offspring at 50 and 250 mg/L; delayed locomotor development	LOAEL = 0.5 mg/kg BW/day	1
Rat	50 mg/L	oral-water	20 months	Depression of conduction tissue excitability; sporadic increases in systolic blood pressure	LOAEL = 0.5 mg/kg BW/day	1
Rat	0.7 mg/kg/day	oral-water	first 18-21 days of gestation	Reproductive toxicity	LOAEL = 0.04 mg/kg/day (female) LOAEL = 0.5 mg/kg/day (male)	2
Mouse	2.2 mg/kg BW or 3 mg/kg BW		daily	Frequency of pregnancy reduced when dose given 3-5 days after mating		3
Mouse	20 mg/kg BW	intrauterine	single dose	Smaller litters; increased fetal deaths		3
Rat	5 mg/L	oral-water	lifetime	Lowered survival and reduced longevity		3
Rat	200 mg/kg BW		daily	50% of progeny dead in 3 weeks		3
Sheep	8 mg/kg BW		220 days	Death		
Horse	2.4 mg/kg BW	oral-food	daily	Death		3
Horse	1.7 mg/kg	oral-food		Lethal over several months		3
Cattle	6-7 mg/kg BW		daily for 2 months	Fatal		3

Table H-27
(Continued)

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Lead						
Cattle	220-400 mg/kg BW	oral	single dose	Fatal		3
Cattle	5 mg/kg BW		10-20 days	Blindness, 16% mortality		3
Bald eagle		oral	121 days	20-25% decrease in hematocrit and hemoglobin concentration	0.8 mg/L blood level	4
Mallard	8 mg/kg	oral-diet as lead nitrate	6 days	66% decrease in erythrocyte count		4
Japanese quail	500 mg/kg	oral-diet as lead acetate	several weeks	significant anemia, decreased hemoglobin concentration		4
Fathead minnow		medium pH = 6-6.5		death	LC_{50} = 810 μg/L	5
Bald eagle		trophic		sub-lethal poisoning	> 0.6 μg/g blood level	6
guppies				delayed sexual maturity	2 ppm	10
Fathead minnow		medium	96 hours as $PbCl_3$	death	LC_{50} = 5.58 ppm	10
Mallard	6-8 mg/kg/day	as lead nitrate		lowered hematocrit and hemoglobin concentration		11

Lead is ubiquitous and is a characteristic trace constituent in rocks, soils, water, plants, animals and air. More than 4 million metric tons of lead are produced worldwide each year, mostly for the manufacture of storage batteries, gasoline additives, pigments, alloys and ammunition. The widespread broadcasting of lead through anthropogenic activities, especially during the past 40 years, has resulted in an increase in lead residues throughout the environment. Lead is neither essential nor beneficial to living organisms and is toxic in most of its chemical forms. Excessive amounts of lead can cause growth inhibition in plants, as well as reduced photosynthesis, mitosis, and water absorption. In domestic and experimental animals, lead adversely affects weight, survival, behavior, litter size, skeletal development, and induces teratogenic and carcinogenic responses in some species.

Lead chemistry is complex. In water, lead is most soluble and bioavailable under conditions of low pH, low organic content, low concentrations of suspended sediments, and low concentrations of salts of calcium, iron, manganese, zinc and cadmium (3). Models of lead speciation combined with toxicity changes in the cell membrane predict that lead is more toxic at lower pH (4). Likewise for soils, mobility is dependent on factors such as pH, organic content, presence of inorganic colloids and iron oxides, and ion-exchange characteristics (2). Although mobility through soils to waters, both surface or groundwater, is not a major route of environmental exposure, exposure to lead-bearing soil particles either by ingestion or inhalation can be a route of exposure.

Lead can be incorporated into the body by inhalation, ingestion, dermal absorption, and placental transfer to the fetus. Lead is an accumulative metabolic poison that affects behavior and the hematopoietic, vascular, nervous, renal and reproductive systems. In general, organo-lead compounds are more toxic than inorganic lead compounds, food chain biomagnification is negligible, and the younger, immature

organisms are most susceptible (3). Although lead does not biomagnify, its concentration in aquatic and terrestrial vertebrates tends to increase with age of the animal. Distribution of lead is localized in hard tissues, such as bones and teeth (6). Ingestion of lead shot from hunter-killed or crippled waterfowl appears to be the major source of lead exposure to bald eagles. Alternatively, ospreys do not ingest those items which contain lead shot or hard tissues that have accumulated lead (7).

The proposed lead criteria for the protection of natural resources and human health recommends for the mouse a daily total intake >0.05 mg/kg BW and for the mule deer total intake > 3 mg/day (3). Accumulation of lead with age has been reported in pronghorn antelope, but the mule deer did not show accumulation in the same study. Background levels of lead in the livers and kidneys from mule deer and pronghorn antelope range from 0.6 to 0.9 μg/g (freeze dried weight) (8). Lead concentration of > 10 μg/g have been associated with diagnostic lead toxicosis in experimental mammals. However, mammals with behavioral and physiological signs of lead intoxication have died with < 5 μg/g (9).

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Table H-28
Toxicological Profile for Manganese

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Manganese						
Rat		Gavage-Water	one time as Mn acetate	Death	LD_{50} = 820 mg/kg/day	1
Rat		Gavage-water	One time as $MnCl_2$	Death	8 days LD_{50} = 804 mg/kg/day	1
Mouse		Oral-Food	90 days as Mn_3O_4	Decreased Activity	LOAEL = 140 mg/kg/day	1
Rat		Oral-Food	100-224 days	Reduced testosterone levels	LOAEL = 13 mg/kg/day	1
Rat		Oral-Water	20 days, Gestation days 0-20 as $MnCl_2$	Decreased Litter weight	LOAEL = 1240 mg/kg/day	1
Mouse		Oral-Food	90 days as Mn_3O_4	delayed growth of testes	LOAEL = 140 mg/kg/day	1
Mouse (male)	1,050 mg/kg	Oral-Food	Chronic	retarded sexual development		4
Longfin dace (*Agosia chrysogaster*)		Medium	96 hours	Death	LC_{50} = 130 mg/L	5

Manganese (Mn) is a naturally occurring substance found mainly in many types of rock. It does not occur in the environment as a pure metal, but combined with other chemicals such as oxygen, sulfur and chloride. Some manganese compounds can dissolve in water and low levels of these compounds are normally present in lakes, streams, and the ocean. Manganese can change from one compound to another, but it does not break down or disappear in the environment. The tendency of soluble manganese compounds to adsorb to soils and sediments depends mainly on the cation exchange capacity and the organic composition of the soil (1). Mn occurs in minute concentrations within the cells of all living things and has been established as essential to a wide variety of organisms ranging from bacteria to plants and animals (3).

Mn is a co-factor essential for the activity of many cellular enzymes such as pyruvate, carboxylase, arginase, and phosphatase. Absorption from the gastrointestinal tract is poor under normal conditions because of low solubility of cationic manganese. About 40% of the total body content of Mn is retained in the bone marrow, and the rest is in a freely exchangeable, labile pool. Mn excretion is almost exclusively fecal and involves the liver, pancreas and intestinal wall (4). Intratracheal instillation studies in rabbits indicate that high doses of Mn (160 mg/kg as MnO_2) can cause severe degenerative changes in the seminiferous tubules and lead to sterility. This effect did not occur immediately, but developed slowly over the course of 4-8 months following the exposure. This effect appears to be a concern of high exposure levels (1). Manganese values found in the liver and kidneys of pronghorn antelope and mule deer (6.0-9.4 μg/g freeze dried weight) were similar to concentrations previously reported (2). Average oral LD_{50} in different experimental animals is 400 to 830 mg/kg BW for soluble Mn compounds (4).

Bioconcentration:

Lower organisms (plankton, aquatic plants and some fish) can significantly bioconcentrate Mn. Higher organisms tend to maintain Mn homeostasis. This indicates that the potential for biomagnification from lower trophic levels to higher ones is low. Freshwater fish BCFs of 22.6 for the fathead minnow (5 day exposure) and 12 in the yellow perch (7 day exposure) have been reported (5).

Table H-28
(Continued)

References:

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Table H-29
Toxicological Profile for Mercury

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Mercury						
Rat	Inorganic Hg	Gavage	1 day/1 treatment	Death	LD_{50} = 29.5 mg/kg/day	1
Rat	500 μg/kg BW	Oral		Reduced fertility		2
Mouse	Inorganic Hg	Gavage	12 days, GD 6-17	Fetal death	LOAEL = 5 mg/kg/day	1
Meadow vole					NOAEL = 0.01300 mg/kg/day	7
Rainbow trout		Medium	96 hours	Death	LC_{50} = 155-200 μg/L	2
Treefrog, *Hyla* spp, 5 spp Embryo-larva		Medium	96 hours	Death	LC_{50} = 2.4-2.8 μg/L	2
Mallard	0.91-0.78 μg/g in egg	Trophic	Lifetime	Reproductive failure		3
Mallard	Methylmercury	Oral	14 days	Death	LD_{50} = 2.2-23.5 mg/kg BW	2
Japanese quail	Methylmercury	Oral	14 days	Death	LD_{50} = 14.4-33.7 mg/kg BW	2
Dog	0.1-0.25 mg/kg BW	Oral	Gestation period	High incidence of stillbirths		2
River otter	>2.0 mg/kg	Oral-diet		Death		2
Mule deer		Oral	Single dose	Death	LD_{50} = 17.88 mg/kg BW	2
Harp seal	25.0 mg/kg BW	Oral	26 days	Death		2
Guppy/Medaka	Methylmercury	Medium	3 months	Impaired spermatogenesis	LC_{50} = 1.8 μg/L	5

Table H-29
(Continued)

Earthworm				Death	LD_{50} = 2.39 ppm	7

The element mercury (Hg) and its compounds have no known normal metabolic function. Presence of mercury in living organisms represents contamination from natural and anthropogenic sources; all such contamination must be regarded as undesirable and potentially hazardous. Forms of mercury with relatively low toxicity can be transformed into forms, mainly methylmercury, with very high toxicity through biological and other processes. Methylmercury can be bioconcentrated in organisms and biomagnified through food chains, returning mercury to upper trophic level consumers in concentrated form. Mercury is a mutagen, teratogen and carcinogen, and causes embryocidal, cytochemical and histopathological effects. High body burdens of mercury normally encountered in some species of fish and wildlife from remote locations emphasize the complexity of natural mercury cycles and human impacts on these cycles. Anthropogenic uses of mercury should be curtailed, because the difference between tolerable natural background levels of mercury and harmful effects in the environment is exceptionally small. Chemical speciation is probably the most important variable influencing ecotoxicology of Hg. All mercury discharged into rivers, bays or estuaries as elemental mercury, inorganic divalent mercury, phenlymercury or alkoxyalkyl mercury can be converted into methylmercury compounds by natural processes. The mercury methylation in ecosystems depends on mercury loading, microbial activity, nutrient content, pH, and redox conditions, suspended sediment load, sedimentation rates, and other variables. The synthesis of methylmercury by bacteria from inorganic Hg compounds present in the water or in the sediments is the major source of this molecule in aquatic environments. This process can occur under both aerobic and anaerobic conditions, and in both freshwater and saltwater (2). Methylmercury in surface waters is rapidly accumulated by aquatic organisms; concentrations in carnivorous fish at the tops of freshwater and saltwater food chains are biomagnified on the order of 10,000-100,000 times those concentrations found in ambient waters (1). For all organisms tested, early developmental stages were the most sensitive, and organomercury compounds - especially methylmercury -were more toxic than inorganic forms. Signs of chronic mercury poisoning in fish include emaciation, cataracts, inability to capture food, abnormal motor coordination, and various erratic behaviors (2). Generally, more than 80% of the mercury in fish flesh is in the form of methylmercury (4). Sublethal effects of mercury on birds include adverse effects on growth, development, reproduction, blood and tissue chemistry, metabolism and behavior. Organomercury compounds, especially methylmercury, are the most toxic mercury species to mammals. Larger animals such as mule deer and harp seals appear to be more resistant to Hg than smaller mammals such as mink, cats, dogs, pigs, monkeys, and river otters (2).

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Table H-30
Toxicological Profile for Methoxychlor

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Methoxychlor						
Rat		gavage-oil	one time	death	LD_{50} = 5,000 mg/kg/day	1
Mouse		gavage	one time	death	LD_{50} = 2,900 mg/kg/day	1
Rat		gavage-oil	gestation days 6-15	reduced maternal body weight gain	LOAEL = 50 mg/kg/day	1
Rat		oral-food	16 weeks	decreased body weight gain	LOAEL = 1,200 mg/kg/day	1
Rat		oral-food	9 weeks	reduced fertility in males and female offspring	LOAEL = 60 mg/kg/day	1
Rat		gavage-oil	56-66 days	decrease in fertility	LOAEL = 100 mg/kg/day	1
Rat	1,600 mg/kg	oral-diet	2 years	reduction in growth		4
Mallard					LD_{50} = >2,000 mg/kg	2
Sharp-tailed grouse					LD_{50} = >2,000 mg/kg	2
Walleye fish			96 hours		LC_{50} = 19.2 μg/L	3
White sucker fish			96 hours		LC_{50} = 260 μg/L	3

Methoxychlor was first synthesized in 1893. Commercial production of methoxychlor in the U.S. was first reported in 1946. In 1975, three U.S. companies produced approximately 5.5 million pounds of methoxychlor. U.S. production in 1982 was 3 million pounds. Because of its low toxicity in animals and humans, methoxychlor has been viewed as an attractive replacement for DDT. The EPA has approved the use of methoxychlor as a pesticide and fumigant on more than 85 crops.

Methoxychlor is released to the environment mainly as a result of its application to crops and livestock as a pesticide. Methoxychlor tightly binds to soils, but is not detectable in soil in areas where it has been applied as a pesticide. The degradation of methoxychlor is mediated by microorganisms and is dependent on the aeration of the soil. Half-lives of less than 30 days and greater than 100 days were obtained for methoxychlor in anaerobic and aerobic soils, respectively. Methoxychlor is a relatively hydrophobic compound with a log octanol/water partition coefficient (log K_{ow}) value of 4.68-5.08. Sorption of methoxychlor to bacteria, algae, and fungi has been reported. Methoxychlor has a relatively high K_{oc} value (K_{oc} = 4.9) and has the potential to undergo significant adsorption to soils, especially those with high organic carbon content. The mobility of methoxychlor may be higher in sandy soils, since adsorption is significantly less in soil with lower organic carbon content and larger particle size.

The bioconcentration of methoxychlor has been investigated in microorganisms, lower invertebrates and in fish. Reported bioconcentration factors (BCFs) for methoxychlor range from 348-1,130 in stoneflies, 5,000-8,570 in snails, and 1,500 in clams. In sheepshead minnows, BCFs were found to be concentration dependent, ranging from 113 at 3 μg/L to 264 at 23 μg/L. Since methoxychlor is rapidly metabolized and eliminated, biomagnification up the food chain does not appear to be of concern (1).Methoxychlor is environmentally degradable and will not be stored in high concentrations in most organisms (5).

Table H-30
(Continued)

References:

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2. Hudson, R.H., Tucker, R.K. and M.A. Haegele. Handbook of Toxicity of Pesticides to Wildlife, second edition. U.S. Dept. of the Interior, Fish and Wildlife Service. Resource Publication 153, Washington D.C. 1984.

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Table H-31
Toxicological Profile for Nickel

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Nickel						
Rat		gavage	one time as $NiSO_4$	death	LD_{50} = 66 mg/kg/day	1
Rat		gavage	one time as Ni acetate	death	LD_{50} = 116 mg/kg/day	1
Mouse		gavage	one time as Ni acetate	death	LD_{50} = 136 mg/kg day	1
Mouse		oral-water	6 or 30 hours as Ni nitrate	abnormal sperm	LOAEL = 23 mg/kg/day	1
Mouse		oral-water	6 or 30 hours as Ni chloride	abnoraml sperm	LOAEL = 43 mg/kg/day	1
Mouse		oral-water	6 or 30 hours as Ni sulfate	abnormal sperm	LOAEL = 28 mg/kg/day	1
Rat		oral-food	3 generations	decreased number of offspring per litter	LOAEL = 50 mg/kg/day	1
Rat weanling	500 and 1,000 mg/kg	oral-food	6 weeks as Ni acetate	decreased body weight gain		3
Rat	225 mg/L	oral-water	4 months as Ni chloride	reduced body weight		3
Rat	25 mg/kg BW/day	gavage	120 days as Ni sulfate	testicular changes		3
Cattle	1,000 ppm	oral-food as Ni carbonate	8 weeks	decreased food intake, growth rate, organ size and nitrogen retention		2
Freshwater Aquatic Organisms		Medium	Chronic		LEC = 0.0083 mg/L	5
Mallard	700 mg/kg	applied to shell surface	18 days	embryonic mortality		4

Table H-51
(Continued)

Nickel is used in combination with other metals to make alloys, which are used in making coins and jewelry and in industry for making items such as valves and heat exchangers. Most nickel is used to make stainless steel. Nickel compounds are also used for nickel plating, to color ceramics, to make batteries, and as catalysts (1).

The aquatic fate of nickel has been studied extensively. In most aerobic environemtnts, nickel may exist in solution as hydroxide, carbonate, sulfate and organic complexes. Soils containing iron and manganese oxides may sorb nickel significantly. Under acidic conditions, nickel is more mobil in soil and may seep into groundwater. Soils rich in organic matter may enhance the mobility of nickel through complexation. Nickel occurs in the 0 and +2 valence states (3). Nickel does not appear to concentrate in fish nor accumulate in plants or small animals (1).

Nickel is an essential element required for growth and iron absorption. Data on the toxicity of nickel have shown wide variations in the amounts of nickel to produce harmful effects (2). In one study 5 ppm of nickel in drinking water of rats from weaning caused death of young in 3 generations and runting in the first and third generations. 500 ppm nickel reduced growth in chicks. For cattle, the maximum tolerable level was set at 50 ppm (2).

Bioconcentration:

BAFs (aquatic organisms) range from <220 for marine plankton to 40,000 in an algae. The bioaccumulation factor in edible fish, may not exceed 100.

References:

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5. U.S. Environmental Protection Agency (EPA) Integrated Risk Information System (IRIS) 1995.

Table H-32
Toxicological Profile for PCBs

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
PCBs						
Rat	As PCB-1254	Oral	1 time	Death	LD_{50}= 1,010 mg/kg/day	1
Mouse	As PCB-1254	Feed	2 weeks	60% death	LOAEL = 130 mg/kg/day	1
Mink	As PCB-1254	Gavage	1 time	Death	LD_{50} =4,000 mg/kg/day	1
Meadow vole	As PCB-1254				NOAEL = 0.10400 mg/kg/day	4
Pig	As PCB-1254	Gavage	21 days	Gastric ulceration	LOAEL = 100 mg/kg/day	1
Rat	As PCB-1254	Feed	10 days	65% decrease in fetal survival	LOAEL = 15 mg/kg/day	1
Mink	As PCB-1254	Feed	28 days	Death	LD_{50} = 7.1 mg/kg/day	1
Rabbit	As PCB-1254	Gavage	28 days	71% fetal death	LOAEL = 12.5 mg/kg/day	1
Monkey	As PCB-1254	Oral-feed	238 days	100% fetal death	LOAEL = 0.1 mg/kg/day	1
Mallard	1000 mg/kg	Oral	1 time	Significant eggshell thinning		2
Marine organism			Chronic		AWQC = 0.03 μg/L	5

Polychlorinated biphenyls (PCBs) are lipid soluble and highly stable man-made compounds that were first manufactured in 1929. Commercial mixtures of PCBs, which can contain up to 80 individual PCB isomers and congeners, have been widely used in industrial products such as flame retardants, hydraulic fluids and dielectric fluids for capacitors and transformers. PCBs accumulate in biological systems (3). The Physiological actions of PCBs in the food chain, in part, are similar to those of DDT and its metabolites. PCBs alone in the diet of American kestrels did not cause eggshell thinning; however, they increased the impact of DDE on eggshell thinning when the birds were exposed to both contaminants (4).

Bioconcentration (PCB-1254):
- Red mullet BCF = 575,000 (5)

Environmental Fate (PCB-1254):
- Log K_{ow} = 6.5
- Henry's Law Constant = 2.0×10^{-3} atm m^3/mol at 25°C
- Vapor Pressure = 7.71×10^{-3} at 25°C

Table H-32
(Continued)

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5. U.S. Environmental Protection Agency (EPA), Office of Science and Technology, Health and Ecological Criteria Division. 1991. Water quality criteria summary. *Federal Register* Notice 57FR60914. Washington, D.C.

Table H-33
Toxicological Profile for Pyridine

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Pyridine						
Rat		gavage - water	90 days	decreased weight gain	LOAEL = 50 mg/kg/day	1
Rat			1 day	death	LD_{50} = 1580 mg/kg/day	1
Rat	0.25, 1.0, 10, 25, 50 mg/kg/day	gavage	90 days	hepatic hypertrophy	LOAEL = 10 mg/kg/day	2

Pyridine is an organic liquid with an unpleasant odor; it is very soluble in water. It is released to the environment from industrial sources that manufacture and use it and as fugitive emissions from facilities such as coal gasification and oil shale processing. Pyridine in water is unlikely to volatilize appreciable, but may sorb to soils and sediments or biodegrade. Because of pyridine's low K_{ow} and high water solubility, it probably will not bioconcentrate in plants, aquatic organisms, or animals (1).

Environmental Fate:

- Log K_{ow} = 0.64/1.04
- Log K_{oc} = 0.84

References:

1 Agency for Toxic Substances and Disease Registry. Toxicological Profile for Pyridine. 1990.

2. U.S. Environmental Protection Agency (EPA). Integrated Risk Information System (IRIS). 1995

Table H-34
Toxicological Profile for Selenium

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Selenium						
Rat		Gavage	one time as elemental Se	Death	LD_{50} = 6,700 mg/kg/day	1
Rat		Gavage	one time as selenite	Death	LD_{50} = 7 mg/kg/day	1
Rat		Oral-Water	1 year as selenate	Reduced Survival	LOAEL = 1.05 mg/kg/day	1
Rat		Oral-Water	4-6 weeks as selenite	4/6 died - males	LOAEL = 0.69 mg/kg/day	1
Mouse		Oral-Water	48 days as selenite	Reduced fetal growth	LOAEL = 0.34 mg/kg/day	1
Rat		Oral-Water	1 year as Potassium selenate	50% reduction in reproduction	LOAEL = 0.35 mg/kg/day	1
Pig		Oral-Food	6 weeks as selenite	fetal/maternal toxicity	LOAEL = 0.41 mg/kg/day	1
Mouse		Oral-Water	3 generations as selenate	50% reduction in offspring number	LOAEL = 0.42 mg/kg/day	1
Mouse		Oral-Water	3 generations as selenate	fetal lethality	LOAEL = 0.42 mg/kg/day	1
Rainbow trout	13 μg/g	Oral-Food	20 weeks	reduced growth, poor feed conversion efficiency, reduced survival		3
Black-necked stilt		Trophic	lifetime	low hatchability	> 8 mg/kg in egg	4
American coot		Trophic	lifetime	20% probability of embryo death or deformity	3.2 μg/g in egg	5
Mallard	60 mg/kg	Oral-Diet	4 weeks	reduced growth		6
Mallard	15 ppm	Oral-Diet	20 days as selenomethionine	embryo mortality	5 ppm in egg	9

Table H-34
(Continued)

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Selenium						
Fathead minnow	20 ppm	Diet	98 days	growth inhibition		8
Fathead minnow		Medium	24 hours as selenate	death	LC_{50} = 82 mg/L	10
Mallard	10 ppm	Oral-Food	as selenomethionine	80% reduction in reproductive success		11

Selenium is nutritionally important as an essential trace element in terrestrial and aquatic systems, but is harmful at slightly higher concentrations. Selenium deficiency is not as well documented as selenium poisoning, but may be equally significant. Selenium released as a result of anthropogenic activities, as well as that in naturally seleniferous areas pose the greatest threat of poisoning fish and wildlife. Metabolism and degradation are significantly modified by interactions with various heavy metals, agricultural chemicals, microorganisms, and numerous physicochemical factors (2). In environments favoring the soluble forms of selenium (alkaline and oxidizing conditions) the soluble forms of selenium (principally sodium selenate) can be accumulated by plants. Bioaccumulation has been documented in aquatic environments and some evidence indicates that under natural condition selenium might biomagnify in aquatic organisms (1).

Biological responses to selenium deficiency or to selenosis vary widely, even among closely related taxonomic groups. Selenium deficiency may be prevented in fish, small laboratory mammals and livestock by feeding diets containing 50 to 100 ppb of selenium. Dietary selenium is toxic to fish in the range of 3-5 $\mu g/g$ (3). Growth inhibition in fish is a commonly reported response to elevated selenium in the diet (8). Proposed Se criteria for prevention of Se deficiency and for protection against selenosis include:

Rats - 54-84 ppb in diet; Cattle - 20 ppb in diet; Sheep and Cattle - 100 ppb in diet; and
Drinking water for livestock - < 50 ppb (2).

Selenium in natural foods is less toxic (approximately 1/4 as toxic) than purified forms of selenium. Toxicity is prevented in livestock if dietary Se concentrations do not exceed 5,000 ppb in natural forage or 2,000 ppb in feeds supplemented with purified Se. Ingestion of minerals and rough or high protein feeds reduces Se toxicity, and exposure by diet is less toxic than exposure parenterally or by inhalation (1). Acute Se poisoning is seen in sheep at concentrations of 3.2-12.8 mg/kg BW. The minimum lethal dose of Se as selenite for horses and mules = 3.3 mg/kg BW, cattle = 11 mg/kg BW, and 15 mg/kg BW for swine. Acute poisoning is associated with plant materials containing 400 to 800 ppm selenium. Exposure to natural selenite, selenate or seleniferous feed resulted in chronic selenosis in rats at 1 ppm, and horses at 44 ppm. The LOEL for rats (a sensitive species) based on longevity was 0.75 mg/kg (2). Sodium selenite in the diet of mallards was not particularly teratogenic compared to selenomethionine. This is in contrast to findings with mice (7). In nature, a female mallard would have to feed in a selenium-contaminated area for a short time before her eggs contained harmful concentrations of selenium (9).

Non-lethal effects of selenium include reproductive anomalies. Selenosis caused congenital malformations in rats, mice, swine and cattle. Young born to females with selenosis were emaciated and unable to nurse. Mice given Se in drinking water reproduced normally for three generations, but litters were fewer and smaller when compared to controls, pups were runts with high mortality before weaning, and most survivors were infertile (2). Teratogenicity caused by selenium has yet to be adequately established in mammals. Selenium exposure has been shown to induce catarats in neonatal rats, guinea pigs, and rabbits. Controlled experiments feeding selenium as selenomethionine to pregnant rhesus monkeys failed to produce significant birth defects even though maternal and fetal toxicity occured (7).

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Table H-35
Toxicological Profile for Silver

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Silver						
Mouse		Oral-water	37 weeks 7 days/week	Decreased weight gain	LOAEL = 222.2 mg/kg/day	1
Guinea pig		Dermal	8 weeks 7 days/week	Decreased weight gain	LOAEL = 137.13 mg/kg/day	1

Silver is a rare, but naturally occuring element. It is often found deposited as a mineral ore in association with other elements. Its major uses include photographic processes, electrical products, batteries, and alloys. Silver is released into the environment through natural processes such as weathering and erosion as well as from processing, manufacturing and combustion of fossil fuels. Organic matter bas demonstrated an enhanced ability to immobilize silver by both soil uptake and airborne deposition. The K_d for silver in a number of soils ranges from 10 to 1000. Bioconcentration factors of 13,000 to 66,000 have been reported for marine algae. Silver is expected to bioconcentrate to a limited extent in algae, mussels, clams and other aquatic organisms. Biomagnification in the food chain is not expected.

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Table H-36
Toxicological Profile for 2,3,7,8-Tetrachlorodibenbenzo-p-dioxin

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
2,3,7,8-Tetrachlorodibenbenzo-p-dioxin						
Guinea Pigs		Oral	90 daya	Death	LD_{50} = 0.008 μg/kg/day	1
Monkeys		Oral	9 months	Death (50%)	LD_{50} = 0.01 μg/kg/day	1
Rats		Oral	2 years	Toxic hepatitis leading to death	LOAEL = 0.001 μg/kg/day	1
Monkeys		Oral	7 months	Spontaneous abortions (66%)	LOAEL = 0.001 μg/kg/day	1
Rabbits		Dermal	1 day 1 time	Death	LD_{50} = 275 μg/kg	1
Guinea Pigs		Oral	1 day 1 time	Death	LD_{50} = 0.6 μg/kg	1

Environmental Fate:

- Log K_{ow} = 6.15 - 7.28
- Log K_{oc} = 6.0 - 7.39
- Vapor Pressure at 25°C = 1.52×10^{-9} mmHg
- Henry's Law Constant = 8.1×10^{-5} atm-m^3/moL at 25°C

References:

1. Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profile for 2,3,7,8-Tetrachlorodibenzo-p-dioxin, 1993.

Table H-37
Toxicological Profile for Thallium

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Thallium						
Fathead minnow		medium	96 hours	death	LC_{50} = 860 μg/L	1
Rat		oral - water	30 - 60 days	histological alteration of testes	LOAEL = 0.7 mg/kg/day	2

Pure thallium is a soft, bluish-white metal that is widely distributed in trace amount in the earth's crust. In its pure form, it is odorless and tasteless. Thallium remains in the environment since it is a metal and cannot be broken down to simpler substances. Thallium is used in the manufacture of electronic devices, switches and closures. Major releases to the environment are from processes such as coal-burning and smelting (2).

Bioconcentration:

- 18.2 for clams
- 11.7 for mussels
- 34 for sunfish
- Thallium is absorbed by plants from soil and thereby enters the terrestrial food chain (2).

References:

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Table H-38
Toxicological Profile for 1,2,4-Trichlorobenzene

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
1,2,4-Trichlorobenzene						
Rat		Oral - Water	multigenerational	increased adrenal gland weight; vacuolization of the zona fasciulata	LOAEL = 53.6 mg/kg/day	1
Rat		Oral	120 days	increased liver weight	LOAEL = 40 mg/kg/day	1
Freshwater Aquatic Organisms*		Medium	chronic	not specified	LEC = 0.05 mg/L	1

* The minimum amount of data required for Ambient Water Quality Critria to be derived are not available. However; a Lowest Effect Concentration (LEC) has been found to be 0.05 mg/L for freshwater aquatic organisms.

References:

1. U.S. Environmental Protection Agency (EPA) Integrated Risk Information System (IRIS) 1995.

Table H-39
Toxicological Profile for Vanadium

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Vanadium						
Mouse		gavage-water	one time	death	LD_{50} = 31 mg V/kg/day	1
Rat		gavage	60 days	reduced pup length and weight	LOAEL = 2.1 mg V/kg/day	1
Rat		gavage-water	60 days	none	NOAEL = 8.4 mg V/kg/day	1
White Leghorn hens	300 ppm	oral-food	not specified	severe depression in egg production	not specified	3
Sheep	9.7-12 mg/kg-BW	oral-capsule	not specified	decline in feed intake	not specified	4
Sheep	40 mg/kg-BW	oral-capsule	not specified	death	not specified	4
Mallard	700 ppm	in oil applied to egg	one time	reduced embryonic growth; birth defects		2

The transport and partitioning of vanadium in water and soil is influenced by pH, redox potential and the presence of particulate. The partitioning of vanadium between water and sediment is strongly influenced by the presence of particulate in the water. In general, marine plants and invertebrates contain higher levels of vanadium than terrestrial plants and animals. Uptake of vanadium into the above-ground parts of many plants is low. Vanadium appears to be present in all terrestrail animals, but, in vertebrates, tissue concentrations are often so low that detection is difficult. No data are available regarding biomagnification of vanadium within the food chain (1). Egg production has been suppressed in laying hens fed vanadium and lipid metabolism altered in laying mallard hens (2).

References:

1. Agency for Toxic Substances and Disease Registry (ATSDR). Toxicological Profile for Vanadium and Compounds. 1992.

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Table H-40
Toxicological Profile for Zinc

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Zinc						
Rat		gavage as Zn acetate	one time	death	LD_{50} = 237 mg/kg/day	1
Mouse		gavage as Zn sulfate	one time	death	LD_{50} = 337 mg/kg/day	1
Mouse		oral-food as Zn oleate	9 months	severe anemia	LOAEL = 68 mg/kg/day	1
Rat		oral-food as Zn sulfate	13 weeks	decreased hematocrit, WBC	LOAEL = 565 mg/kg/day	1
Cow		oral-food as Zn oxide	5 weeks	decreased body weight gain	LOAEL = 91 mg/kg/day	1
Rat		oral-food as Zn oxide	gestation days 1-15	decreased fetal weight	LOAEL = 200 mg/kg/day	1
Rat		oral-food as Zn oxide	150 days	increased still birth	LOAEL = 250 mg/kg/day	1
Rat		oral-food as Zn carbonate	150 days	no reproduction in females	LOAEL = 250 mg/kg/day	1
Marbled Salamander (embryo)	2,380 ppb		8 days	50% dead or deformed		2
Japanese Quail (Hens)		oral-food	7 days	body weight reduction, reduced egg production, reduced eggshell strength		2

Table H-40
(Continued)

Organism	Dose	Exposure Route	Exposure Period	Effect	Endpoint	Reference
Zinc						
Turkey (Sperm)	90 mg/L	medium		fertilizing ability reduced		2
Horse	> 90 mg/kg BW	environmental		decreased growth, lameness, bone deformities, death		2
Cat	300 mg/kg	oral-food	16 weeks	weight loss, pancreas histopathology		2
Bluegill		medium	96 hour - soft water	death	LC_{50} = 1.9 - 3.6 ppm	3
Fathead minnow		medium		death	LC_{50} = 2.65 mg/L	4

Zinc is widely distributed in nature, but is usually not found as elemental zinc in nature. In 1989, approximately 278,900 metric tons were produced from domestic ores in the United States. Zinc is used most commonly as a protective coating of other metals. In addition, it is used in alloys such as bronze and brass, for electrical apparatus. Alloys containing zinc and copper are used to make U.S. one-cent coins. Zinc salts have numerous applications and are used in wood preservation, catalysts, photographic paper, ceramics, textiles, smoke bombs, and pharmaceutical applications (1). Major sources of anthropogenic zinc in the environment include electroplaters, smelting and ore processors, mine drainage, domestic and industrial sewage, combustion of solid wastes and fossil fuels, road surface runoff, corrosion of zinc alloys and galvanized surfaces, and erosion of agricultural soils (2).

Zinc is capable of forming complexes with a variety of organic and inorganic complexing groups. Biological activity can affect the mobility of zinc in the aquatic environment, although the biota are a minor reservoir of zinc, relative to the sediments. Zinc has its primary effect on zinc-dependent enzymes that regulate RNA and DNA. The pancreas and bone are primary targets in birds and mammals. Zinc and its compounds induce testicular sarcomas in birds and rodents when injected directly into the testes; however, zinc in not carcinogenic by any other route. Growth of animal tumors is stimulated by zinc and retarded by zinc deficiency. Although tissue residues are not yet reliable indicators of zinc concentrations, zinc poisoning usually occurs in birds when liver or kidney contains > 2.1 g Zn/kg DW and in mammals when concentrations exceed 274 mg Zn/kg DW in kidneys, 465 mg Zn/kg DW in liver or 752 mg Zn/kg DW in pancreas (2).

Bioconcentration:

BCF (terrestrial plants) = 0.4
BCF (invertebrates) = 8
BCF (mammals) = 0.6
BCF (12 aquatic species) = 4 - 24,000 (1)

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1. Agency for Toxic Substances and Disease Registry. (ATSDR). Toxicological Profile for Zinc. 1992.

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