

REPORT ON FINE GRID SAMPLING PLAN
(FOR TCDD AND 2, 3, 7, 8-TCDD)
Volume One

Hercules Incorporated
Wilmington, Delaware

IT Corporation
Knoxville, Tennessee

REPORT ON FINE GRID SAMPLING PLAN
(FOR TCDD AND 2,3,7,8-TCDD)
JACKSONVILLE, ARKANSAS

Submitted to:

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Wilmington, Delaware

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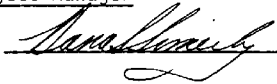
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IT ANALYTICAL SERVICES APPROVALS:

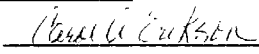
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ATTACHMENTS

1. "A Sampling Strategy for Clean-up of Dioxin in Soil," J.H. Exner, R.O. Gilbert, and R.R. Kinnison, submitted to Environmental Emergency Services Company, July 1984.
2. "Rapid Determination of TCDD in Soil and Sediment Using Gas Chromatography and Tandem Mass Spectrometry," U.S. Environmental Protection Agency, Region VII, March 1986.

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3. "USEPA Contract Laboratory Program Statement of Work (SOW) for Rapid Turnaround Dioxin Analysis Multi-Media," November 1986.
4. "Regional Technical Assistance for Preparing Quality Assurance Project and Laboratory Plans", Steven R. Lemons, ROQA-005/85, revised January, 1986, Office of Quality Assurance, Environmental Services Division, USEPA, Region VI.
5. Sample Documentation Forms.

VOLUME III

Analytical Data Packages For Semi-Isomer Specific TCDD

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1.0

1.0 INTRODUCTION AND SUMMARY

In order to comply with the soil and sediment sampling and analytical provisions of an Administrative Order on Consent (Order) between itself and the U.S. Environmental Protection Agency, Region VI, Hercules Incorporated contracted with IT Corporation, a wholly-owned subsidiary of International Technology Corporation, to collect soil and sediment samples in the Vertac off-site areas of Jacksonville, Arkansas and with TMS Analytical Services, Inc. to conduct analyses of the collected samples. The purpose of this sampling and analytical project was to determine the concentrations of tetrachlorodibenzo-p-dioxin (TCDD; dioxin) if any, in soil and sediment in the Vertac offsite areas. The results of this soil and sediment sampling and analytical effort are reported in this document.

Results of analyses of fish from Lake Dupree for 2,3,7,8-TCDD are reported in a separate document as required by the Order.

Results of analyses of sediment samples collected from the basin and ponds of the old sewage treatment plant (STP) for non-dioxin analyses, which were not part of the Order, are also reported in a separate document.

In the past, the Vertac plant in Jacksonville manufactured and/or formulated pesticides, including phenoxy herbicides. These products, manufacturing by-products and waste products are suspected of having contaminated Rocky Branch Creek, which flows through and forms portions of the east and west boundaries of the plant, the City of Jacksonville's old sewage treatment plant (STP; West Wastewater Treatment Plant) and parts of its sewage collection system, Lake Dupree, and Bayou Meto which receives water from Rocky Branch Creek. Past sampling by various organizations had detected dioxin contamination in these areas.

As both Rocky Branch Creek and Bayou Meto are known to flood during periods of heavy rain, the present sampling effort was designed to obtain information about areas located in the flood plains of both bodies of water. Locations selected for sampling were west and east legs of Rocky Branch Creek, residential and non-residential land immediately adjacent to and within the legs of the creek,

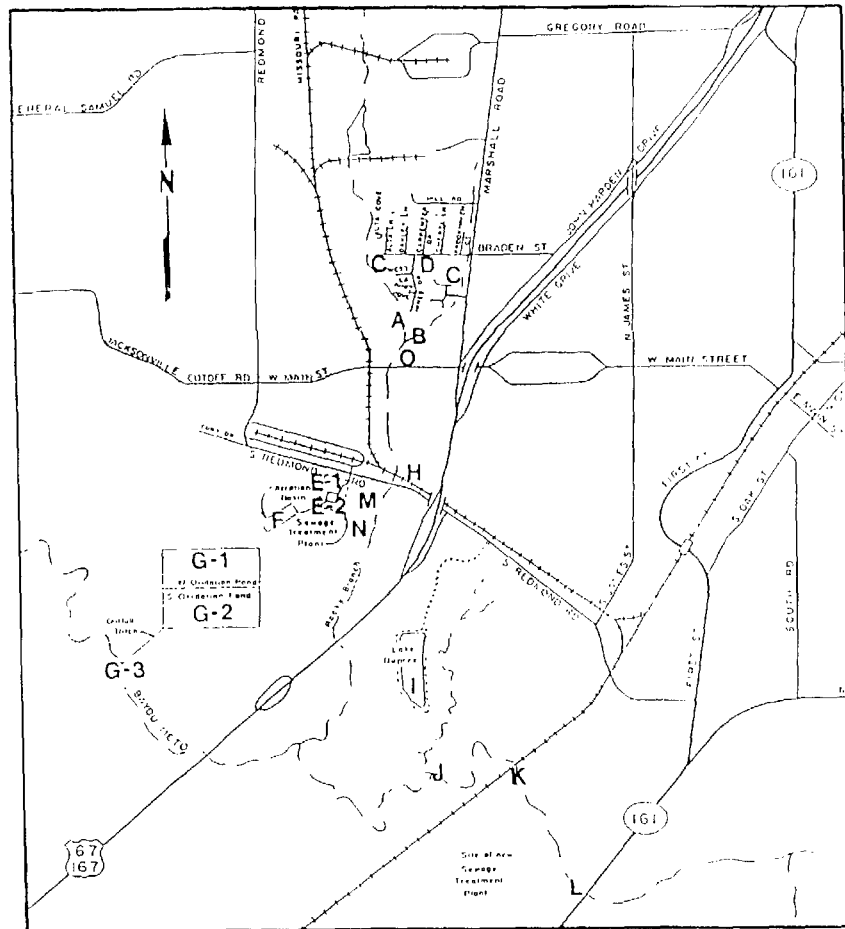
south of the Vertac plant, and Bayou Meto. Areas within and contiguous to the old sewage treatment plant and surface areas in the residential area immediately adjacent to manholes which are part of the sewage collection system were also included in the sampling plan. Lake Dupree and several other miscellaneous areas were also examined during this project. An overview of the areas in Jacksonville included in this sampling/analytical effort are shown in Figure 1.

During this project several sample collection techniques were used depending upon the area being sampled. In many of the areas, several individual aliquots of soil or sediment were composited to form one sample for analysis. A composite sample was formed with aliquots taken from sections (grids) with a maximum size of 5000 square feet. In other areas a single sample (grab sample) was collected and submitted for analysis. When concentrations of TCDD of 1 ppb (parts per billion) or greater were found in a sample from any section, samples taken from an immediately adjacent section were analyzed. If these samples contained concentrations of TCDD of 1 ppb or greater then sampling was performed in the next immediately adjacent section until a non-contaminated section was reached. This sequential sampling and analysis was done to delineate the extent of contamination.

During the field sample collection portion of this project, over 450 soil or sediment samples, either composite or grab samples were collected. Of these, over 300 samples were submitted for analysis for TCDD by semi-isomer specific procedures. When analytical results showed that the TCDD concentration in a sample was equal to or greater than 1 ppb, that sample was also analyzed for the specific 2,3,7,8-TCDD isomer.

Most soil or sediment samples from the areas involved in the sampling program had TCDD concentrations less than 1 ppb; over half the soil and sediment samples analyzed had TCDD concentrations less than 0.300 ppb.

One of the areas where TCDD concentrations of 1 ppb or greater were found was in the top sludge of a section of the aeration basin (Figure 1, Area F) and the sludge drying beds of the STP (Figure 1, Area E1); the highest concentration of 2,3,7,8-TCDD found was 2.8 ppb. Other soil and sediment samples from locations within the STP (Figure 1, Areas G1/G2) and in the Bayou Meto at the outfall of



REFERENCE: STREET MAP OF JACKSONVILLE,
 ARK. BY ARKANSAS AUTHORITY TO THE
 1984 EDITION

0 100 200 300 400
 FEET
 SCALE

AREA DESCRIPTIONS

- A = W ROCKY BRANCH (BANK ELEVATIONS)
- B = E. ROCKY BRANCH (BANK ELEVATIONS)
- C = ROCKY BRANCH (FINE GRID ALONG BANK)
- D = RESIDENTIAL AREA (GROSS GRID)
- E = OLD SEWAGE TREATMENT PLANT (STP)
- F = AERATION BASIN AT STP
- G = OXIDATION PONDS AT STP & BAYOU METO
 AT OUTFALL OF OXIDATION PONDS
- H = MANHOLE #2043 BY SOUTH REDMOND RD
- I = LAKE DUPREE
- J =
- K = } BAYOU METO (BANK ELEVATIONS)
- L = }
- M = } DRY CREEK BEDS
- N = }
- O = MOUND AT ROCKY BRANCH & WEST
 MAIN STREET

FIGURE 1

SAMPLING AREA OVERVIEW



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the STP (Figure 1, Area G3) contained less than 0.300 ppb of TCDD. Soil from two dry creek beds located between the eastern side of the STP and Rocky Branch Creek (Figure 1, Areas M and N) also contained less than 0.300 ppb TCDD.

Soil from some locations of Area C (Figure 1) adjacent to the west leg of Rocky Branch Creek were found to have concentrations of TCDD ranging from 1 to 3 ppb. These locations along the west leg were the yards of three residences (2202 and 2203 Braden Street and 2112 West Lane) and portions of a wooded area south of this residential area. On the east leg of Rocky Branch Creek, the only location where soil was found to contain TCDD concentrations greater than 1 ppb was in the yard of 1704 Hill Road and land immediately to the north (Vertac plant property). Concentrations of 2,3,7,8-TCDD in soil in the 1704 Hill Road yard ranged from less than 0.300 ppb to 12 ppb; a ditch just north of this property contained 54 ppb 2,3,7,8-TCDD.

Soil from all other locations in the residential area (Figure 1, Areas C and D), including areas around manholes, and the wooded area along the east leg of Rocky Branch Creek contained less than 1 ppb TCDD. In addition, soil from the banks of the east leg of Rocky Branch Creek (Figure 1, Area B) and bottom sediment from the creek contained less than 1 ppb 2,3,7,8-TCDD. Due to analytical difficulties, data for soil from the banks of the west leg of the creek (Figure 1, Area A) are not confirmed. These data will be reported in a supplement to this report.

Soil from the banks of Bayou Meto (Figure 1, Areas J, K and L) and soil from the perimeter of and the sediment in Lake Dupree (Area I) contained less than 0.300 ppb TCDD.

Soil from two other locations sampled, an area around a manhole near Rocky Branch Creek and South Redmond Road (Figure 1, Area H) and a mound of dirt adjacent to Rocky Branch Creek and the West Main Street bridge (Figure 1, Area O), contained less than 0.300 ppb TCDD.

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2.0

2.0 SAMPLING AND ANALYTICAL PLAN SUMMARY

All sampling was conducted by the Field Analytical and Sampling (FAS) Division of IT Corporation according to the offsite sampling plans for the Vertac chemical site issued with the Order. Any deviation was fully documented, in accordance with the established quality assurance requirements (see Section 4.0 of this report). A representative of the EPA Region VI was present during the field effort in an oversight role as Remedial Project Manager (RPM).

2.1 SAMPLING PROGRAM

An overview of the entire sampling area is shown in Figure 1. Specific sampling reference areas are designated by the letters A through O; brief descriptions of each area are given in the legend. With the approval of the EPA RPM, two sampling area designations (N and O) were added to those initially described in the sampling plans.

In order to determine representative concentrations of TCDD over a large area as quickly and efficiently as possible, certain field sample aliquots were composited for analysis. The compositing technique used is described in Section 3.0 and the strategy for collecting sample aliquots for compositing is described in Section 5.0 of this report. Sampling strategies included fine grid sampling and compositing based on "A Sampling Strategy for Clean-up of Dioxin in Soil" (Attachment 1), gross grid random grab sampling, and individual grab sampling.

A total of 526 samples were collected between June 28 and August 12, 1988; one gross grid sample was collected on September 7, 1988. These samples included soil, sediment, quality control (QC) samples and soil and sediment samples split with EPA. Table A-1 (Appendix A) lists all the samples collected in numerical order. The table shows the date sampled, the sample location description, QC code, composite information, the analysis requested, the laboratory that performed the analysis and the analytical status of each sample. Section 9.0 of this report contains tables defining the abbreviations and codes used in Table A-1.

2.2 ANALYTICAL PROGRAM

A total of 356 samples, excluding splits, were analyzed for TCDD on a 48 hour turnaround basis at TMS Analytical Services, Inc., Indianapolis, Indiana. The analytical procedure used was a semi-isomer specific analysis for 2,3,7,8-TCDD by high resolution gas chromatography/tandem mass spectrometry (GC/MS/MS) (Attachment 2). This method was intended to be used when analytical results are required rapidly. Results of the semi-isomer specific analyses are reported as not detected if concentrations of TCDD of 0.3 ppb or less are found. Samples with TCDD equal to or greater than 1.0 ppb were routinely re-analyzed using high resolution gas chromatography/low resolution mass spectrometry for 2,3,7,8-TCDD only. For re-analysis, either the extract prepared for the initial GC/MS/MS analysis was used or, when necessary, a new extract was prepared from the soil or sediment sample by procedures described in Section III of Attachment 3.

Some samples were held in storage (archive status) until results of samples from adjacent sections were received. If analytical results for the initially analyzed samples showed 1 ppb or greater TCDD concentrations, then samples from the immediately adjacent sections were submitted for analysis. When necessary, additional samples were collected.

The specific sampling program and a summary of the analytical results for each area are given in Section 5.0. In this section the areas are ordered by their reference letter with related areas combined in a single subsection. Maps and tables have been used to present the sample locations and the analytical results. Table A-2 (Appendix A) lists in numerical order all of the samples submitted for TCDD analysis, including quality control samples, along with complete field information and the semi-isomer specific TCDD and 2,3,7,8-TCDD results.

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3.0 GENERAL SAMPLING METHODOLOGY

During the field effort, soil and sediment samples were collected by the procedures detailed below. For any sample that required a sampling procedure deviating from those described, the exact procedure used was documented in the field logbook and the deviation has been noted in the appropriate section of this report. The procedures used to decontaminate sampling equipment are described in Section 6.0.

3.1 SOIL SAMPLING PROCEDURE

A 3/4" hollow stainless steel sampling probe was used to collect each soil core. The depth of take for each core was zero to three inches. Coarser fragments or grasses were not included in the sample. If rocks in the sample area precluded the use of the sampling probe, a stainless steel spoon was used to collect loose soil around the rocks. After collection, each soil aliquot was placed in an aluminum pan for compositing (if required) then the sample was transferred to a glass jar with a stainless steel scoop or spoon and the jar sealed with a teflon-lined lid.

3.2 SEDIMENT SAMPLING PROCEDURES

Sediment samples were collected using three different techniques, approved by the EPA RPM, depending on the type of sediment.

3.2.1 Pond Sediment: Sludge

The top sediment (or sludge) in each pond, basin or lake was collected using an Eckman dredge. The open dredge was lowered from a boat until it settled on top of the sludge, then the closing mechanism was triggered trapping sample material inside. The dredge was retrieved and water was drained out of the dredge. A stainless steel spoon or scoop was used to transfer the sample to an aluminum pan for compositing (if required) or directly to the glass sample jar.

3.2.2 Pond Sediment: Interface

Samples containing the interface between the bottom sediment and the clay bottom of each pond or basin were collected using a 2-1/2" diameter piston-type bed-material hand sampler. The sampler was forced through the sludge with the piston fixed in a closed position preventing material from entering the sampler.

When the sampler reached the interface with the clay bottom it was augered into the clay layer forcing the piston upward and trapping some bottom sediment with the clay core. After the piston was offset one to by three inches it was pulled up creating a vacuum and locking the core in place. The sampler was withdrawn and the core extruded into an aluminum pan for compositing. Each core contained a distinct layer of bottom sediment interfacing with a layer of clay bottom.

3.2.3 Stream Sediment

Each stream sediment sample was collected from the bottom of Rocky Branch Creek at mid-stream using a stainless steel spoon. For this field effort, the stream bed happened to be nearly dry in each area of stream sediment sampling.

3.3 SAMPLE COMPOSITING PROCEDURE

As each soil or sediment aliquot was collected, it was placed in a rectangular aluminum pan. All aliquots for one composite sample were approximately the same mass. Once all the aliquots for one composite sample were collected the soil/sediment was mixed thoroughly with gloved hands or a stainless steel spoon until homogeneous. Rocks, sticks, insects, grass and other coarse fragments were removed from the pan. After mixing, an imaginary grid was drawn on the pan, dividing it into four or six equal sections. An aliquot was taken from each section moving in a clockwise direction and placed into a glass sample jar. The contents of the pan were mixed again, and four or six more portions were placed into the sample jar. This procedure was repeated until approximately 35 grams were collected in the sample jar. The sample jar was sealed with a teflon-lined lid.

3.4 SAMPLE COLLECTION FOR MULTIPLE ANALYSES

Although not within the provisions of the Order, Hercules Incorporated consented to the request of the EPA for collection and analysis of sludge (top sediment) samples from the Aeration Basin (Area F) and Oxidation Ponds (Area G1/G2) of the STP for priority pollutants, pesticides, herbicides and metals and for characterization. Some of these samples were submitted for TCDD analysis as well as the analyses noted above. For these samples, additional sample containers (the number and volume of containers was dependent upon the analyses requested) were filled immediately after filling the glass sample jar for TCDD analysis using

the same procedure described above. The sampling information and analytical results of the samples analyzed for parameters other than dioxin are discussed in a separate document.

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4.0

4.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

The quality assurance (QA) goal for this program was to ensure that all information, data and documentation were technically sound, statistically valid and properly documented. In order to accomplish this goal, certain field quality control (QC) activities were performed along with the regular field sample collection activities described in earlier sections. A description of these QC activities and a summary of the ensuing results are presented in this section.

4.1 CONTROL OF DEVIATIONS

Any deviations or additions to the sampling methods detailed in the sampling plans were justified and approved by the EPA Remedial Project Manager (RPM) prior to the commencement of sampling. All deviations were carefully documented in the field logbook or in a correspondence from the EPA RPM to Hercules Incorporated, so the procedure could be repeated if necessary.

4.2 QUALITY CONTROL SAMPLES

Quality control samples included soil blanks, trip blanks, equipment rinsates, duplicate samples and composite mixture check samples. The total number of QA/QC samples analyzed represented a frequency of over 25 percent with respect to the number of field samples collected for analysis. In addition, approximately 10 percent of the total number of samples submitted for analysis were split with the EPA for an additional, external QA/QC check.

4.2.1 Soil Blanks

The sample material used for soil blanks or background samples was collected from the North Vandenburg Boulevard bridge, one-quarter mile west of John Harden Drive and south of the culverts at the Little Rock Air Force Base boundary. Collection of a large quantity of soil was performed following the same procedures previously documented, with the exception that no compositing was performed. The background sample material had characteristics similar to soil collected in the sampling program. Periodically throughout the sampling effort, a sample jar was filled with background soil and submitted as a blank, blind to the laboratory, along with a regular sample shipment. A total of eleven soil blanks were submitted for analysis. All of the soil blanks analyzed were reported as "not detected" at a level of 0.300 parts per billion (ppb) TCDD (see Table A-2, Appendix A).

4.2.2 Trip Blanks

A trip blank consisted of a 40-ml glass vial filled with pesticide-grade hexane, transported to the field, and periodically included with a shipment of site samples to the laboratory for analysis. The purpose of the blank was to monitor potential cross-contamination of the samples during handling and shipment. Ten trip blanks were submitted for TCDD analysis and all were reported as "not detected" at a level of 0.300 nanograms per sample. Analytical results for trip blanks are presented in Table A-2, Appendix A.

4.2.3 Equipment Rinsate Blanks

Equipment rinsate blanks were collected to verify the effectiveness of sampling equipment decontamination procedures and to monitor potential cross-contamination between samples. The rinsate collection procedure consisted of decontaminating the sampling tool according to the routine procedure described in Section 6.0, FIELD DECONTAMINATION OF SAMPLING EQUIPMENT, followed by pouring pesticide-grade hexane over the surfaces of the tool that interface with sample material during collection. The hexane rinsate was then collected in a glass jar with a teflon-lined lid.

A total of nineteen equipment rinsate blanks were submitted for TCDD analysis. All but one of the rinsates were reported as "not detected" at a detection level of 0.300 nanograms per sample. Rinsate sample number WH2240 showed 0.58 ng of TCDD per sample (see Table A-2, Appendix A).

This contaminated rinsate was a composite of two rinses, one performed on each of the two soil sampling probes after sampling a fine grid around manhole number 2735. The soil samples collected with each of these probes prior to and immediately after the rinsate was collected were all reported as "not detected" at 0.300 ppb TCDD level. Another equipment rinse composite was collected ten samples later; it was also "not detected" for TCDD. Upon the request of Hercules Incorporated, sample WH2240 was re-analyzed by the laboratory; the second result showed 0.61 ng of TCDD confirming the initial analysis. However, it is apparent from the data that samples taken following the positive equipment rinsate blank were unaffected by any contamination (see Table A-2, Appendix A).

4.2.4 Field Duplicates

Field duplicate samples were collected to determine the reproducibility of the sampling procedures as well as the reproducibility of the analytical procedures. Duplicate samples were collected periodically throughout the sampling effort to represent the different types of samples and the different sample collection procedures (i.e. soils/sediment samples, grab and fine grid composite samples).

Samples selected for preparation as duplicates were collected according to the procedures described in Section 3.0. Portions were then taken for the original sample, the remaining sample material was re-mixed, and then portions were taken for the duplicate sample. Each duplicate sample was given a unique sample number so that its relationship with the original sample would be unknown to the laboratory.

A total of 24 field duplicate samples were submitted for analysis. The duplicate and original sample results are reported along with all other field samples in the summary tables in appropriate sections of Section 5.0 and in Table A-2, Appendix A. Duplicate samples are indicated by the code "QDU" and original samples are indicated by the code "ORIG". A duplicate pair can be matched by cross-referencing the sample numbers. It is important to note that variation in analytical results between a duplicate and original sample can represent any variation that could have occurred during sample collection, sample handling and shipping, preparation for analysis, and analysis as well as variation inherent in the analytical method.

Tables 1 and 2 present a summary of the analytical results for the duplicate samples for TCDD and 2,3,7,8-TCDD. Relative percent differences (RPDs) have been calculated according to the following equation:

$$RPD = \frac{|D_1 - D_2|}{\left(\frac{D_1 + D_2}{2}\right)} \times 100$$

D_1 = original measurement
 D_2 = duplicate measurement

Table 1. Field Duplicate
Results Summary
TCDD

Original Sample Number	Duplicate Sample Number	Sample Type	Original Result (ppb)	Duplicate Result (ppb)	RPD (%)
WH1411	WH1412	Soil	0.569	0.489	15
WH1449	WH1450	Soil	0.304	ND(0.3)	a
WH1467	WH1468	Soil	ND(0.3)	ND(0.3)	b
WH1490	WH1493	Soil	ND(0.3)	ND(0.3)	b
WH2026	WH2027	Soil	4.75	2.843	50
WH2039	WH2040	Soil	1.308	1.65	23
WH2045	WH2046	Sediment	ND(0.3)	ND(0.3)	b
WH2065	WH2066	Soil	ND(0.3)	ND(0.3)	b
WH2092	WH2093	Soil	1.727	1.443	18
WH2103	WH2104	Soil	0.631	0.629	0.3
WH2149	WH2156	Soil	ND(0.3)	ND(0.3)	b
WH2149	WH2157	Soil	ND(0.3)	ND(0.3)	b
WH2190	WH2191	Soil	ND(0.3)	ND(0.3)	b
WH2209	WH2210	Sediment	ND(0.3)	ND(0.3)	b
WH2222	WH2226	Sediment	2.840	2.336	19
WH2229	WH2232	Core	ND(0.3)	ND(0.3)	b
WH2314	WH2316	Soil	2.849	2.814	1.2
WH2321	WH2324	Soil	1.775	2.388	29
WH2329	WH2332	Soil	3.465	2.863	19
WH2340	WH2341	Sediment	ND(0.3)	ND(0.3)	b
WH2345	WH2347	Soil	ND(0.3)	ND(0.3)	b
WH2349	WH2351	Soil	ND(0.3)	ND(0.3)	b
WH2355	WH2357	Soil	11.577	5.128	77

^aRPD cannot be calculated.

^bRPD cannot be calculated; however, the two results do indicate that reproducibility has been demonstrated.

Table 2. Field Duplicate
Results Summary
2,3,7,8-TCDD

Original Sample Number	Duplicate Sample Number	Sample Type	Original Result (ppb)	Duplicate Result (ppb)	RPD (%)
WH2039	WH2040	Soil	1.33	1.85	33
WH2092	WH2093	Soil	1.66	1.41	16
WH2222	WH2226	Sediment	2.83	1.07	90
WH2321	WH2324	Soil	1.88	2.30	20
WH2329	WH2323	Soil	3.34	2.78	18
WH2355	WH2357	Soil	11.65	5.1	78
WH2026	WH2027	Soil	2.36	2.79	17
WH2314	WH2316	Soil	3.09	2.69	14

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Only one of the TCDD RPDs and two of the 2,3,7,8-TCDD RPDs are above 50 percent. Including the outlying result, the average RPD for TCDD is $25(\pm 23)$; excluding this result the average is $19(\pm 15)$. Including the two outlying results, the average RPD for 2,3,7,8-TCDD is $36(\pm 30)$; excluding the outliers, the average is $10(\pm 7)$. The EPA control limit for the RPD between duplicate TCDD measurements is <50%. As can be seen from the tables, the field duplicate samples showed, overall, acceptable reproducibility in both TCDD and 2,3,7,8-TCDD analyses.

4.2.5 Composite Mixture Check Samples

Composite "mix" check samples were collected to evaluate the thoroughness of the mixing process during composite sample collection and to monitor any potential variation within the composited sample material. The "mix" check sample collection procedure consisted of taking the sample aliquots according to the appropriate procedure for a soil or sediment sample and compositing the aliquots as described in Section 3.3 SAMPLE COMPOSITING PROCEDURE. The aluminum pan used for mixing was then divided into four quadrants and the original sample collected by taking portions from each quadrant in a clockwise direction, as previously described and illustrated below:

A	B
D	C

Aluminum Pan
containing
composited soil
or sediment

Without additional mixing, four "mix" check samples were then taken, one from each quadrant. Each "mix" check sample was given a unique sample number; the appropriate suffix (A,B,C or D) was appended for data management purposes. Mixture checks were performed on three composite samples for a total of 12 individual "mix" check samples submitted for analysis. Analytical results for these samples are included in appropriate summary tables in Section 5.0 and in Table A-2, Appendix A. Of these 12, eight "mix" checks and the corresponding original

samples were reported as "not detected" at 0.300 ppb TCDD. The remaining four "mix" checks and the corresponding original sample contained measurable amounts of TCDD. The results for these soil samples were as follows:

<u>SAMPLE NUMBER</u>	<u>TOTAL TCDD (ppb)</u>	<u>QA/QC CODE</u>	<u>RPD FROM ORIG (%)</u>	<u>RPD FROM MEAN (%)</u>
WH 2054	.728	ORIG		
WH 2055A	.857	QDM	16.3	16.2
WH 2056B	.820	QDM	11.9	20.6
WH 2057C	1.185	QDM	47.8	16.1
WH 2058D	1.172	QDM	46.7	15.0

RPD = Relative percent difference
 QDM - Composite mixture check sample

To determine the amount of variation between the original and each "mix" check sample, the RPD between them was calculated (as if each "mix" check and original were a duplicate pair). To evaluate the variation among the four quadrant samples the RPD between each "mix" check sample and the mean of all four "mix" check samples has been calculated and tabulated along with the results presented above. The EPA control limit for the RPD between duplicate TCDD measurements is <50%. As can be seen, both the differences between the concentration of each "mix" check sample and the original and the differences among the four "mix" check samples are within the EPA control limits.

4.3 FIELD SPLIT SAMPLES

As an additional QA/QC check, over 10 percent of all field samples analyzed were split with the EPA. The samples to be split were selected by the EPA RPM, and were collected, composited (as required), and mixed by the routine procedure. Twice the normal volume was then placed into the original sample jar, the jar was shaken, and its contents were split by transferring half of the sample material to a second glass sample jar. The split sample was given a unique sample number. Cross-reference information identifying the original sample and the split sample was recorded on the sample collection log for each paired sample. The custody of all split samples was transferred to the EPA Field Investigative Team representative using EPA Chain-of-Custody procedures. A total of 32 split samples were collected during this field effort. Table A-3 in Appendix A lists all the split samples and the corresponding field information.

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5.0

5.0 SAMPLE AREA DESCRIPTIONS AND PRESENTATION OF ANALYTICAL RESULTS

This section contains a description of each sampling area and the specific sampling strategy used in that area. It also contains figures illustrating each area, showing the sample collection locations and the analytical results. Quality control sample results are not included in the figures; however, results of field duplicates and "mix" check samples are included in the summary table preceding each figure(s). All analytical results and other information for each sample are presented in numerical order in Table A-2, Appendix A.

5.1 AREAS A AND B: BANKS AND BOTTOM OF ROCKY BRANCH CREEK (WEST AND EAST LEGS)

Areas A and B comprise the sections of Rocky Branch Creek which border the residential area south of and adjacent to the Vertac Plant property. The areas extend from the Vertac property line to the confluence of the west and east tributaries. The west leg of the creek or main tributary is Area A; the east leg is Area B. Sampling was conducted in the following manner:

Soil:

- The creek legs were divided into 500 feet sections for each composite sample.
- Samples were taken every 10 feet on the wall of the creek on each side of the creek, designated left and right bank facing upstream.
- Samples were taken 6" above water level; 12" above water level; 36" above water level. Initially only the 6" sample was analyzed. If concentrations at or above 1 ppb 2,3,7,8-TCDD were present then the samples from the next elevation were analyzed.

Sediment: (collected at mid-stream)

- One bottom grab sample was taken in the west leg of Rocky Branch Creek at the southern boundary of the Vertac site, in the east leg of Rocky Branch Creek at the southern boundary of the Vertac site (1704 Hill Road property line), and the confluence of the two legs, for a total of 3 samples. Each sample was analyzed.

Because of dry conditions resulting from a prolonged drought and to maintain a consistent reference elevation, a theoretical water level was established. An elevation bench mark was designated at the bridge over Rocky Branch at West Main Street. An arbitrarily established depth of one foot of water was measured at the concrete bridge abutment base. A transit level was used to determine the amount of fall evident from the fence at the plant site to the confluence of the east and west legs of Rocky Branch. A 9.5-foot drop was determined over the 2,230 feet involved in the sampling for the west leg. The entire length was surveyed and one foot water elevation markers (theoretical) were installed to reference the desired sample elevations. Water was present at most locations on the east leg; when dry areas were encountered, the techniques adopted for the west leg were utilized to establish a theoretical water level reference on the east leg.

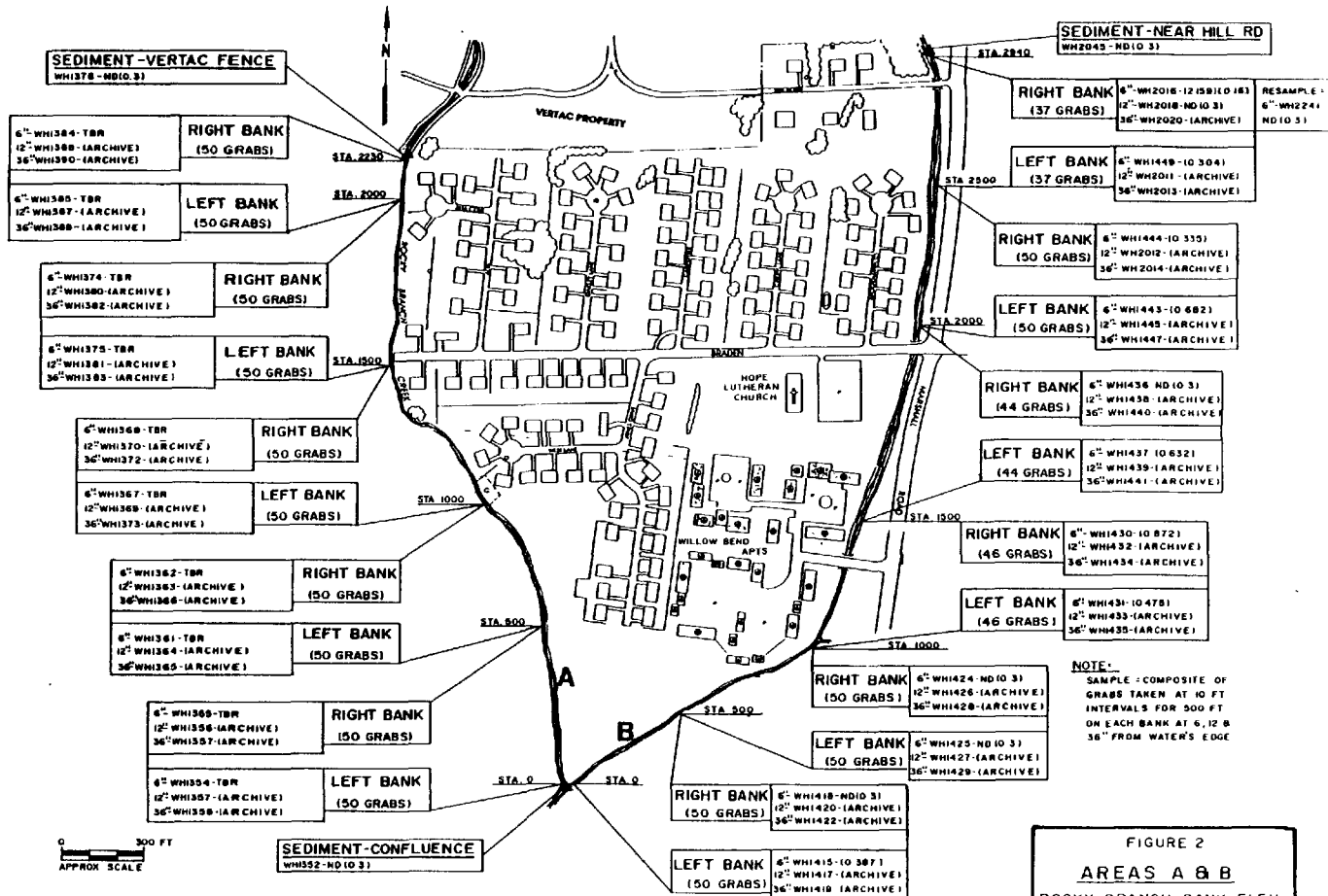
The analytical results revealed that the soil samples from the east leg and the sediment samples from Rocky Branch Creek contained less than 1 ppb 2,3,7,8-TCDD. Table 3 and Figure 2 present the sample locations for Areas A and B along with the results for TCDD analyses and isomer-specific 2,3,7,8-TCDD analyses when applicable. Due to analytical difficulties, the data for soil samples from the west leg are not confirmed. Based upon an agreement between Hercules Incorporated and the EPA RPM, these data are not reported here. The data will be reported in a supplement to this report.

TABLE 3

AREAS A and B: BANKS AND BOTTOM OF WEST AND EAST LEGS OF ROCKY BRANCH CREEK
SUMMARY OF RESULTS OF DIOXIN ANALYSES OF SOIL AND SEDIMENT SAMPLES

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
<u>AREA A: BANKS OF WEST LEG - SOIL</u>			
WH1354	0 to 500 ft, Left Bank, 6 inches above water	TBR	TBR
WH1355	0 to 500 ft, Right Bank, 6 inches above water	TBR	TBR
WH1361	510 to 1000 ft, Left Bank, 6 inches above water	TBR	TBR
WH1362	510 to 1000 ft, Right Bank, 6 inches above water	TBR	TBR
WH1367	1010 to 1500 ft, Left Bank, 6 inches above water	TBR	TBR
WH1368	1010 to 1500 ft, Right Bank, 6 inches above water	TBR	TBR
WH1375	1510 to 2000 ft, Left Bank, 6 inches above water (ORIG)	TBR	TBR
WH1377	1510 to 2000 ft, Left Bank, 6 inches above water (QDU of WH1375)	TBR	TBR
WH1374	1510 to 2000 ft, Right Bank, 6 inches above water	TBR	TBR
WH1385	2010 to 2230 ft, Left Bank, 6 inches above water	TBR	TBR
WH1384	2010 to 2230 ft, Right Bank, 6 inches above water	TBR	TBR
<u>AREA B: BANKS OF EAST LEG - SOIL</u>			
WH1415	10 to 500 ft, Left Bank, 6 inches above water	0.387	N/A
WH1418	10 to 500 ft, Right Bank, 6 inches above water	0.300 U	N/A
WH1425	510 to 1000 ft, Left Bank, 6 inches above water	0.300 U	N/A
WH1424	510 to 1000 ft, Right Bank, 6 inches above water	0.300 U	N/A
WH1431	1010 to 1500 ft, Left Bank, 6 inches above water	0.475	N/A
WH1430	1010 to 1500 ft, Right Bank, 6 inches above water	0.872	N/A
WH1437	1510 to 2000 ft, Left Bank, 6 inches above water	0.632	N/A
WH1436	1510 to 2000 ft, Right Bank, 6 inches above water	0.300 U	N/A
WH1443	2010 to 2500 ft, Left Bank, 6 inches above water	0.682	N/A
WH1444	2010 to 2500 ft, Right Bank, 6 inches above water	0.335	N/A
WH1449	2510 to 2940 ft, Left Bank, 6 inches above water (ORIG)	0.304	N/A
WH1450	2510 to 2940 ft, Left Bank, 6 inches above water (QDU of WH1449)	0.300 U	N/A
WH2016	2510 to 2940 ft, Right Bank, 6 inches above water	2.159	0.16
WH2241	2510 to 2940 ft, Right Bank, 6 inches above water, resample	0.300 U	N/A
WH2018	2510 to 2940 ft, Right Bank, 12 inches above water	0.300 U	N/A
<u>AREAS A and B: BOTTOM SEDIMENT</u>			
WH1352	Confluence of East and West Legs	0.300 U	N/A
WH1378	Area A: West Leg Leg at Vertac fence	0.300 U	N/A
WH2045	Area B: East Leg at 1704 Hill property line (ORIG)	0.300 U	N/A
WH2046	Area B: East Leg at 1704 Hill property line (QDU of WH2045)	0.300 U	N/A

D - Duplicate analytical sample
 U - Not detected at stated concentration
 N/A - Not applicable
 ORIG - Original sample of quality control pair
 QDU - Duplicate sample of quality control pair
 TBR - To be reported in supplement to this report



5.2 AREAS C AND D: ROCKY BRANCH CREEK (RESIDENTIAL AREA)

Area C encompasses a narrow strip of land immediately south of the Vertac Plant and adjacent to the east and west legs of Rocky Branch Creek. Area D includes all the residential property between the two creek tributaries. Fine grid sampling strategy was used in Area C while random grab sampling within a gross (large) grid was used in Area D. Figure 3 presents an overview of Area C showing the sampling stations of the wooded area near the creek confluence and the individual addresses sampled in the residential area. Detailed drawings for specific locations are presented later in this document as noted in Figure 3.

The fine grid sampling techniques were based on the document "A Sampling Strategy for Cleanup of Dioxin in Soil" (Attachment 1). Modifications were made at some specific sampling locations at the recommendation or with the approval of the EPA RPM. Two different basic grid plans were used for two sections within Area C. These sections are: 1) the wooded ("non-residential") section nearer the creek confluence south of 2111 West Lane on the west leg of Rocky Branch Creek and south of Braden Street on the east leg; and 2) the residential section just south of the Vertac property. Table A-2 (Appendix A) presents the field information and analytical results for all samples collected, listed in numerical order.

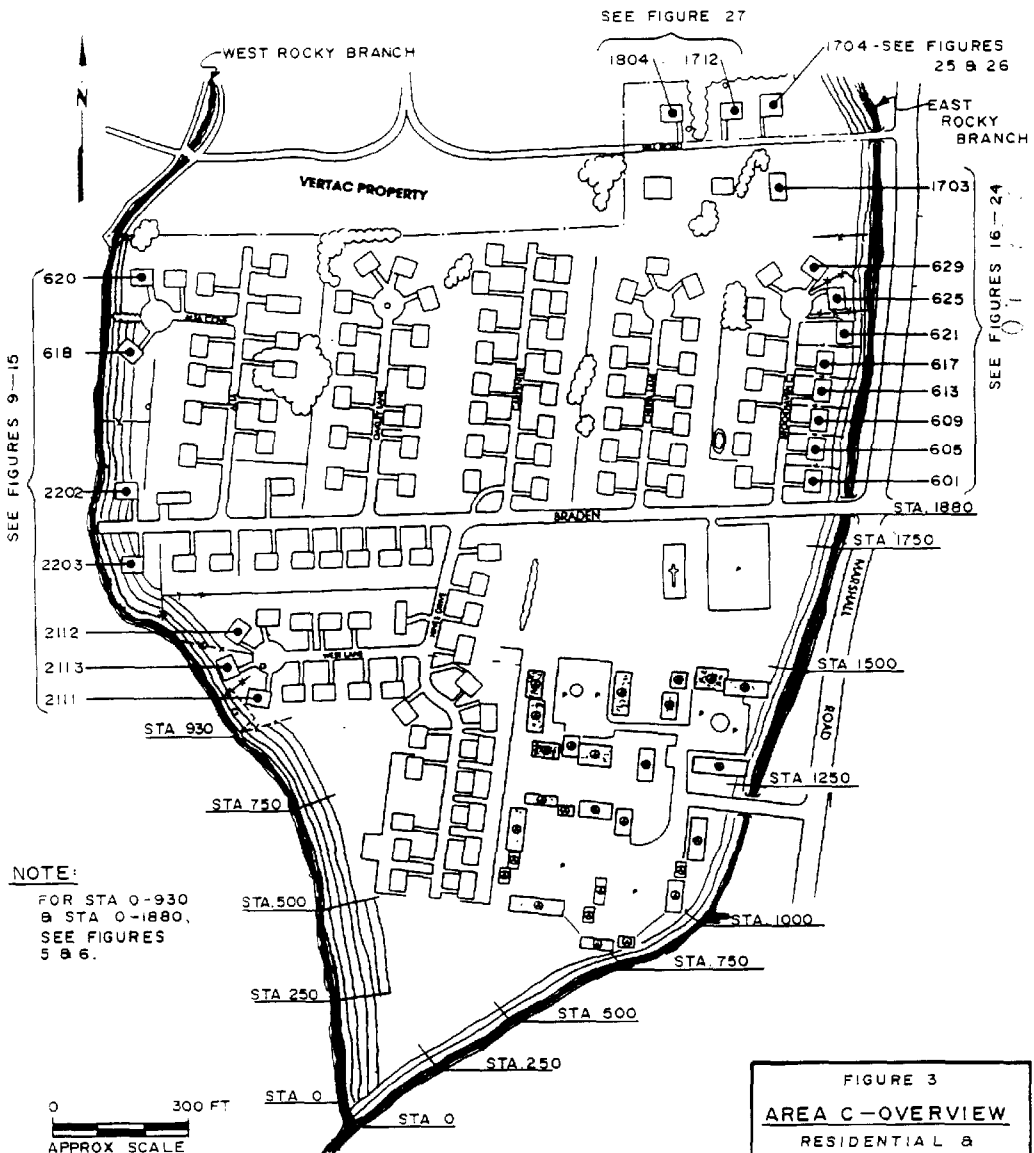


FIGURE 3
AREA C-OVERVIEW
 RESIDENTIAL &
 NON-RESIDENTIAL

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5.2.1 Area C: "Non-Residential" Wooded Area

For the purposes of this report, the section of Area C where single-family residences are not actually located is defined as the "non-residential" section. Figure 4 diagrammatically presents a typical sampling grid used in this section of Area C. Each grid unit (or row) was 20ft x 250ft (5000 sq.ft.). Each row was divided into 50 equal blocks of size 10 by 10 feet by setting up two lines parallel to the long axis of the row, 10 feet apart and 5 feet from each side of the row. Markers were then placed every 10 feet along these lines starting 5 feet from one end. Each marker was at the center of the 10 by 10 foot block as illustrated in the figure.

Three composite samples were obtained from each row according to the systematic pattern shown in Figure 4. Referring to the figure the letters N,S,E and W represent sample aliquot locations 2.5 feet to the north, south, east or west of the center markers (reference point) in each row. All north aliquots in one row were composited, all south aliquots in one row were composited and so forth, such that each row had three composite samples of 50 aliquots each, unless obstacles necessitated a modification. On the west leg of Rocky Branch the north, south, and west composite samples were collected; on the east leg, the north, south, and east composite samples were collected. Each collection of sample material was thoroughly mixed and homogenized as described in Section 3.3 SAMPLE COMPOSITING PROCEDURE.

During the surveying of the sampling grid units, the confluence of the east and west legs of Rocky Branch was designated as Station 0 (Zero). At 250-foot increments, subsequent stations were marked moving upstream on each leg of the creek (See Figure 5).

Initially, two adjacent rows between each station were surveyed and sampled. The rows were identified as Row 1 (adjacent to the creek) and Row 2 (further into the wooded area). All three composite samples collected from Row 1 were analyzed first; if the results for any composite were above 1 ppb TCDD, then that composite sample was analyzed for 2,3,7,8-TCDD to confirm the level of contamination and composite samples from Row 2 were analyzed for TCDD. If results from Row 2 were again above 1 ppb, the EPA RPM recommended sampling two additional rows further into the wooded area, in that same 250 foot section.

NOTE:

SAMPLE = COMPOSITE OF GRABS TAKEN AT 10' INTERVALS, IN A 20' x 250' GRID. EACH GRID HAS 3 SAMPLES, ONE AT EACH NORTH, SOUTH OR EAST LOCATION - 2.5' FROM REFERENCE POINT (WEST LEG HAS WEST LOCATIONS).

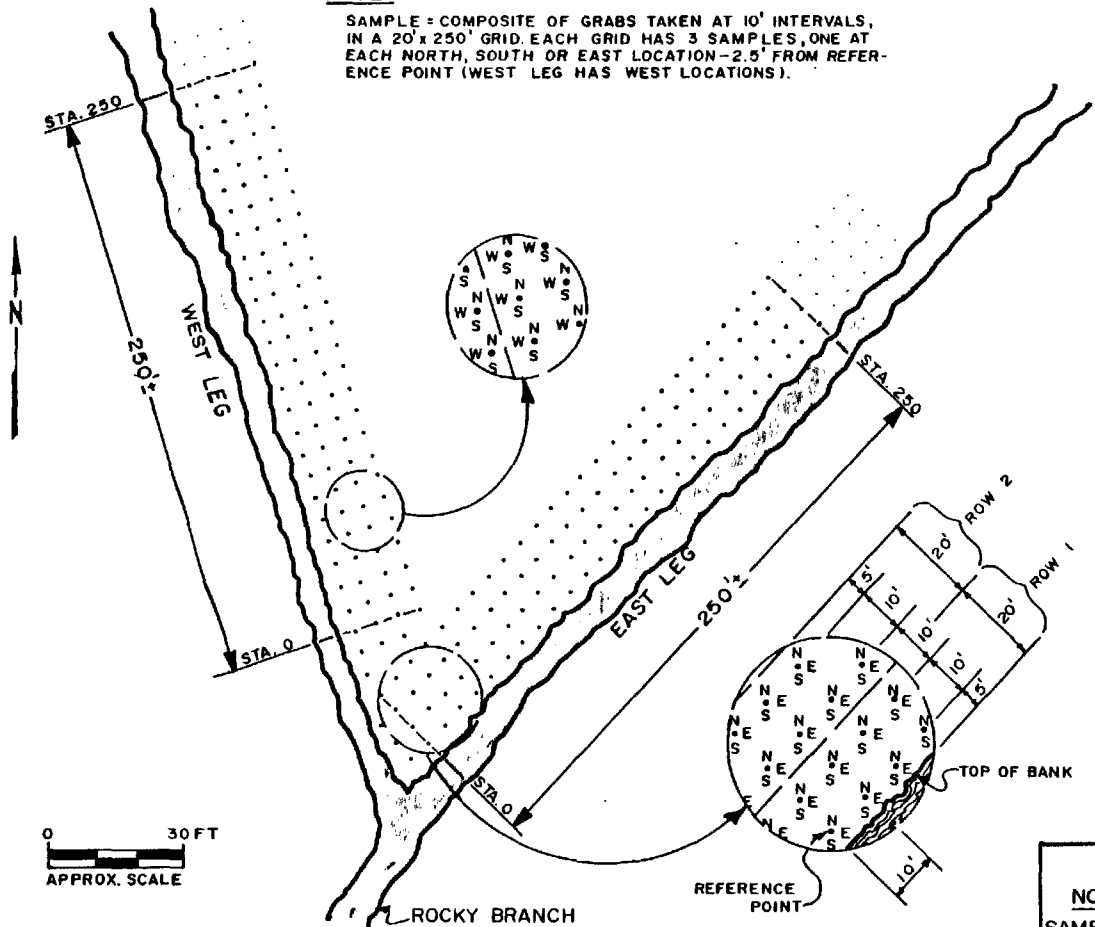
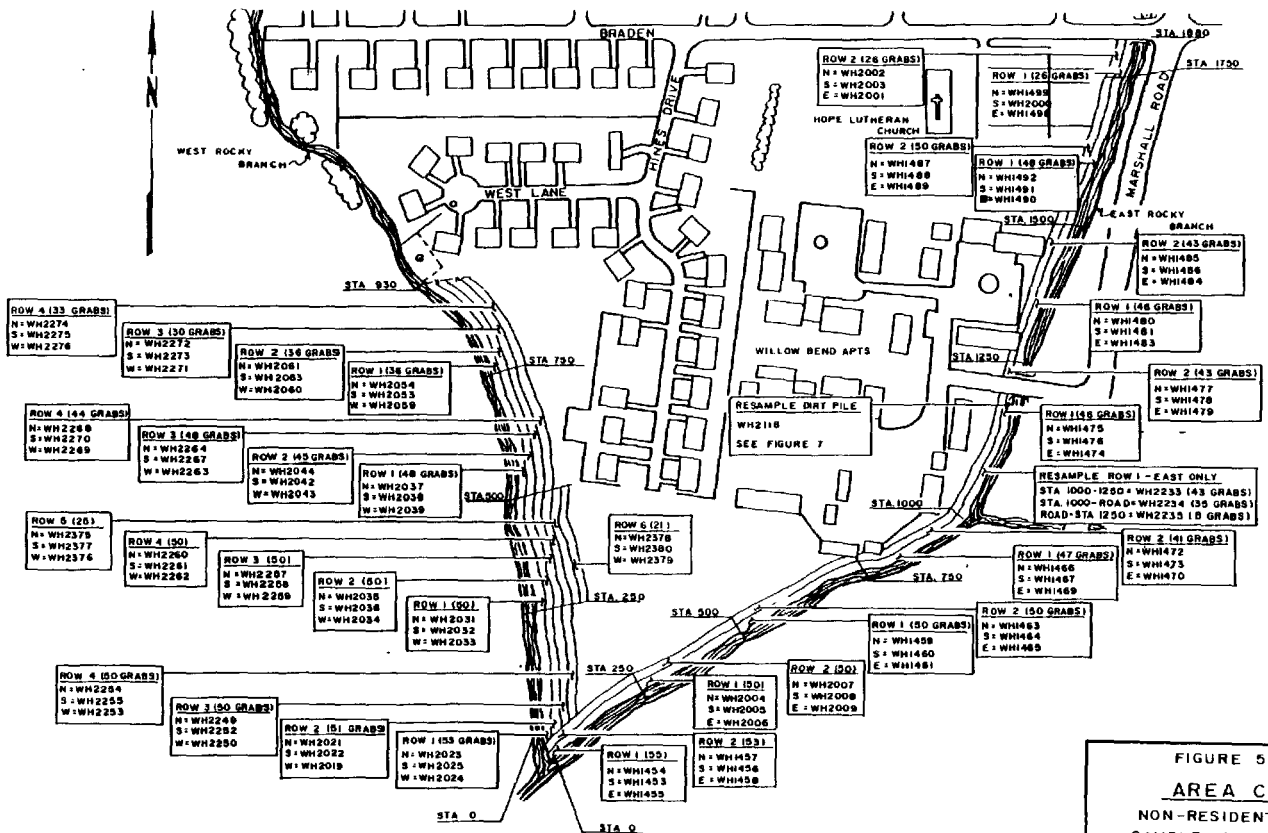


FIGURE 4
**NON-RESIDENTIAL
 SAMPLING GRID PATTERN**


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0930



0 250 FT
APPROX SCALE

FIGURE 5
AREA C
NON-RESIDENTIAL
SAMPLE LOCATIONS



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CORPORATION**

These samples were submitted for analysis one row at a time and sampling continued until composite sample results showed less than 1 ppb TCDD. Each sample with results of 1 ppb or greater for TCDD was analyzed for the specific 2,3,7,8-TCDD isomer using high resolution GC/low resolution MS. Any sample not required for analysis was maintained in secured storage under archive status. Figure 5 shows all the grid units that were sampled during this field effort and the three sample numbers associated with each unit or row.

Table 4 and Figure 6 present data for soil samples collected from this "non-residential" area along the west leg of Rocky Branch Creek. Low levels of dioxin, ranging from less than 0.300 ppb to 2.9 ppb were found in sections of this land closest to the creek. For each section, the extent of contamination was delineated by the results from the eastern-most portion sampled which were all less than 1 ppb dioxin.

Table 5 and Figure 6 present data for soil samples collected from the area adjacent to the east leg of Rocky Branch Creek. All soil samples taken from sections along the east leg had less than 0.300 ppb dioxin, except for one of three composites taken from Row 1 between Station 1000 and 1250. This particular unit had some unusual physical features; it was divided by a road and it contained a large mound of fill dirt on the bank of the creek just south of the road. In an attempt to isolate the source of the TCDD found in the east composite sample, Row 1 was re-sampled (the east aliquot locations only) in its original linear run, excluding the mound of dirt adjacent to the creek, and was divided into two sections north and south of the road for two additional sample composites.

Sample WH2233 was collected from the full row, sample WH2234 was collected from Station 1000 to the road, and sample WH2235 was collected from the section between the road and station 1250. Aliquots from the mound of fill dirt were not added to any of these samples because it appeared to have been from another location.

TABLE 4

 AREA C - "NON-RESIDENTIAL" WOODED AREA ALONG WEST LEG OF ROCKY BRANCH CREEK
 SUMMARY OF RESULTS OF DIOXIN ANALYSES OF SOIL SAMPLES

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
WH2023	0 to 250 ft, Row 1: North	2.138	2.01
WH2025	0 to 250 ft, Row 1: South	2.172	2.88
WH2024	0 to 250 ft, Row 1: West	0.300 U	N/A
WH2021	0 to 250 ft, Row 2: North	1.520	1.98
WH2022	0 to 250 ft, Row 2: South	1.484	1.68
WH2019	0 to 250 ft, Row 2: West	1.402	1.79
WH2249	0 to 250 ft, Row 3: North	0.723	N/A
WH2252	0 to 250 ft, Row 3: South	0.869	N/A
WH2250	0 to 250 ft, Row 3: West	0.794	N/A
WH2031	250 to 500 ft, Row 1: North	2.889	2.73
WH2032	250 to 500 ft, Row 1: South	2.958	2.67
WH2033	250 to 500 ft, Row 1: West	2.716	2.53
WH2035	250 to 500 ft, Row 2: North	1.986	1.83
WH2036	250 to 500 ft, Row 2: South	1.864	1.90
WH2034	250 to 500 ft, Row 2: West	2.153	2.02
WH2257	250 to 500 ft, Row 3: North	1.740	1.08
WH2258	250 to 500 ft, Row 3: South	1.476	1.74
WH2259	250 to 500 ft, Row 3: West	0.961	0.96
WH2260	250 to 500 ft, Row 4: North	0.867	1.15
WH2261	250 to 500 ft, Row 4: South	1.476	1.32
WH2262	250 to 500 ft, Row 4: West	1.255	1.45
WH2375	250 to 500 ft, Row 5: North	1.239	1.23
WH2377	250 to 500 ft, Row 5: South	1.334	1.34
WH2376	250 to 500 ft, Row 5: West	1.275	1.28
WH2378	250 to 500 ft, Row 6: North	0.849	N/A
WH2380	250 to 500 ft, Row 6: South	0.960	N/A
WH2379	250 to 500 ft, Row 6: West	0.890	N/A
WH2037	500 to 750 ft, Row 1: North	1.246	1.26
WH2038	500 to 750 ft, Row 1: South	1.826	1.81
WH2039	500 to 750 ft, Row 1: West (ORIG)	1.308	1.33
WH2040	500 to 750 ft, Row 1: West (QDU of WH2039)	1.650	1.85
WH2044	500 to 750 ft, Row 2: North	0.738	N/A
WH2042	500 to 750 ft, Row 2: South	0.693	0.65
WH2043	500 to 750 ft, Row 2: West	1.445	1.55
WH2264	500 to 750 ft, Row 3: North	0.300 U	N/A
WH2267	500 to 750 ft, Row 3: South	0.300 U	N/A
WH2263	500 to 750 ft, Row 3: West	0.417	N/A
WH2054	750 to 930 ft, Row 1: North	0.728	N/A
WH2055A	750 to 930 ft, Row 1: North (QDM of WH2054)	0.857	N/A
WH2056B	750 to 930 ft, Row 1: North (QDM of WH2054)	0.820	N/A
WH2057C	750 to 930 ft, Row 1: North (QDM of WH2054)	1.185	1.18
WH2058D	750 to 930 ft, Row 1: North (QDM of WH2054)	1.172	1.23
WH2053	750 to 930 ft, Row 1: South	0.412	N/A
WH2059	750 to 930 ft, Row 1: West	0.922	0.95
WH2061	750 to 930 ft, Row 2: North	1.627	1.09
WH2063	750 to 930 ft, Row 2: South	1.004	0.87
WH2060	750 to 930 ft, Row 2: West	0.976	1.42
WH2272	750 to 930 ft, Row 3: North	0.695	N/A
WH2273	750 to 930 ft, Row 3: South	0.584	N/A
WH2271	750 to 930 ft, Row 3: West	0.729	N/A

Measurement of distances begins at the junction of the West and East Legs; see Fig. 4, 5 and 6.

U - Not detected at stated concentration

N/A - Not applicable

ORIG - Original sample of quality control pair

QDU - Duplicate sample of quality control pair

QDM - Composite mixture check

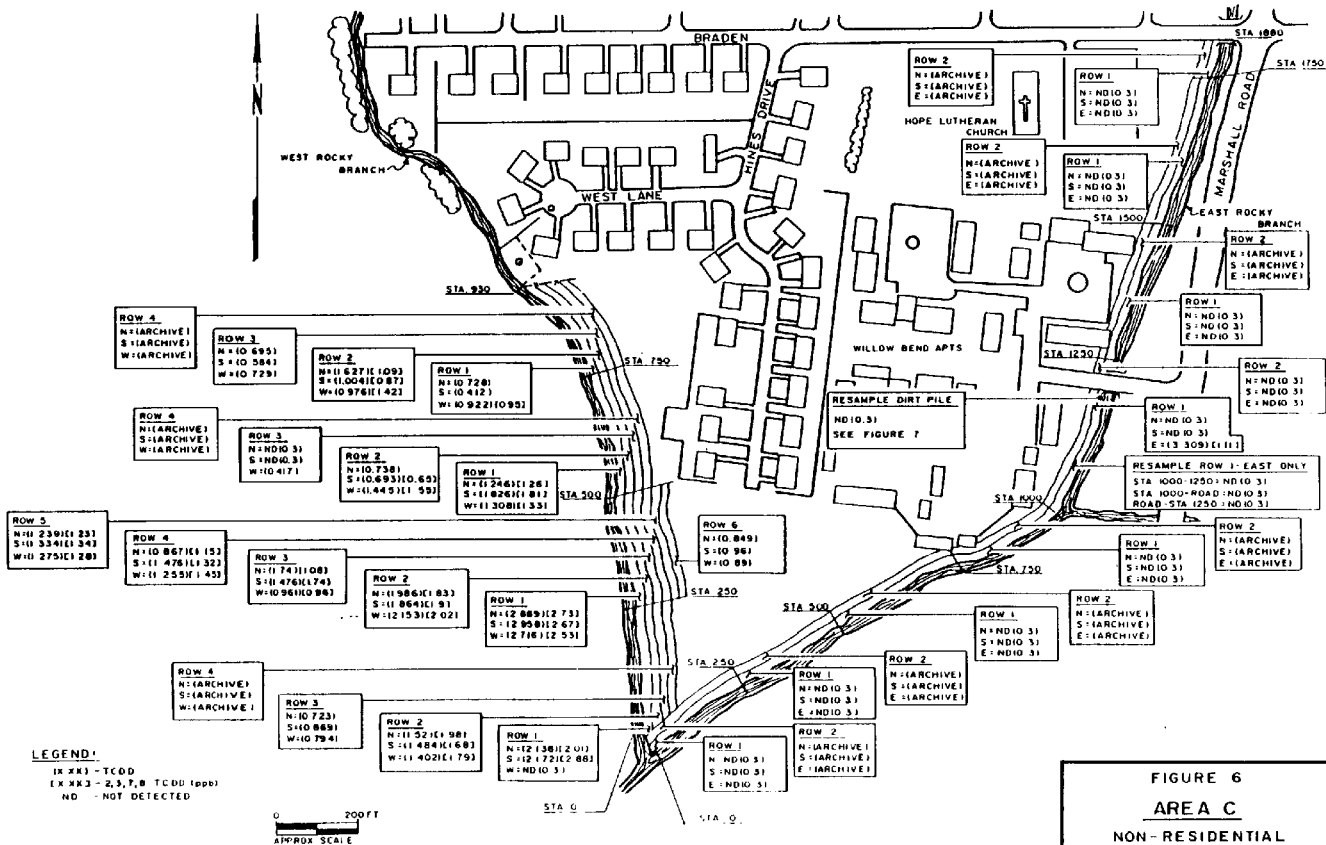


TABLE 5

 AREA C: "NON-RESIDENTIAL" WOODED AREA ALONG EAST LEG OF ROCKY BRANCH CREEK
 SUMMARY OF RESULTS OF DIOXIN ANALYSES OF SOIL SAMPLES

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
WH1454	0 to 250 ft, Row 1: North	0.300 U	N/A
WH1453	0 to 250 ft, Row 1: South	0.300 U	N/A
WH1455	0 to 250 ft, Row 1: East	0.300 U	N/A
WH2004	250 to 500 ft, Row 1: North	0.300 U	N/A
WH2005	250 to 500 ft, Row 1: South	0.300 U	N/A
WH2006	250 to 500 ft, Row 1: East	0.300 U	N/A
WH1459	500 to 750 ft, Row 1: North	0.300 U	N/A
WH1460	500 to 750 ft, Row 1: South	0.300 U	N/A
WH1461	500 to 750 ft, Row 1: East	0.300 U	N/A
WH1466	750 to 1000 ft, Row 1: North	0.300 U	N/A
WH1467	750 to 1000 ft, Row 1: South (ORIG)	0.300 U	N/A
WH1468	750 to 1000 ft, Row 1: South (QDU of WH1467)	0.300 U	N/A
WH1469	750 to 1000 ft, Row 1: East	0.300 U	N/A
WH1475	1000 to 1250 ft, Row 1: North	0.300 U	N/A
WH1476	1000 to 1250 ft, Row 1: South	0.300 U	N/A
WH1474	1000 to 1250 ft, Row 1: East	3.309	1.11
WH2233	1000 to 1250 ft, Row 1: East, resample	0.300 U	N/A
WH2234	1000 to 1250 ft, East, 1000 ft to road	0.300 U	N/A
WH2235	1000 to 1250 ft, East, road to 1250 ft	0.300 U	N/A
WH2118	Dirt pile at fence corner between Willow Bend Apartments and East Leg of Rocky Branch	0.300 U	N/A
WH1477	1000 to 1250 ft, Row 2, North	0.300 U	N/A
WH1478	1000 to 1250 ft, Row 2, South	0.300 U	N/A
WH1479	1000 to 1250 ft, Row 2: East	0.300 U	N/A
WH1480	1250 to 1500 ft, Row 1: North	0.300 U	N/A
WH1481	1250 to 1500 ft, Row 1: South	0.300 U	N/A
WH1483	1250 to 1500 ft, Row 1: East	0.300 U	N/A
WH1492	1500 to 1750 ft, Row 1: North	0.300 U	N/A
WH1491	1500 to 1750 ft, Row 1: South	0.300 U	N/A
WH1490	1500 to 1750 ft, Row 1: East (ORIG)	0.300 U	N/A
WH1493	1500 to 1750 ft, Row 1: East (QDU of WH1490)	0.300 U	N/A
WH1494A	1500 to 1750 ft, Row 1: East (QDM of WH1490)	0.300 U	N/A
WH1495B	1500 to 1750 ft, Row 1: East (QDM of WH1490)	0.300 U	N/A
WH1496C	1500 to 1750 ft, Row 1: East (QDM of WH1490)	0.300 U	N/A
WH1497D	1500 to 1750 ft, Row 1: East (QDM of WH1490)	0.300 U	N/A
WH1499	1750 to 1880 ft, Row 1: North	0.300 U	N/A
WH2000	1750 to 1880 ft, Row 1: South	0.300 U	N/A
WH1498	1750 to 1880 ft, Row 1: East	0.300 U	N/A

Measurement of distances begins at the junction of the West and East Legs; see Fig. 4, 5 and 6.

U - Not detected at stated concentration

N/A - Not applicable

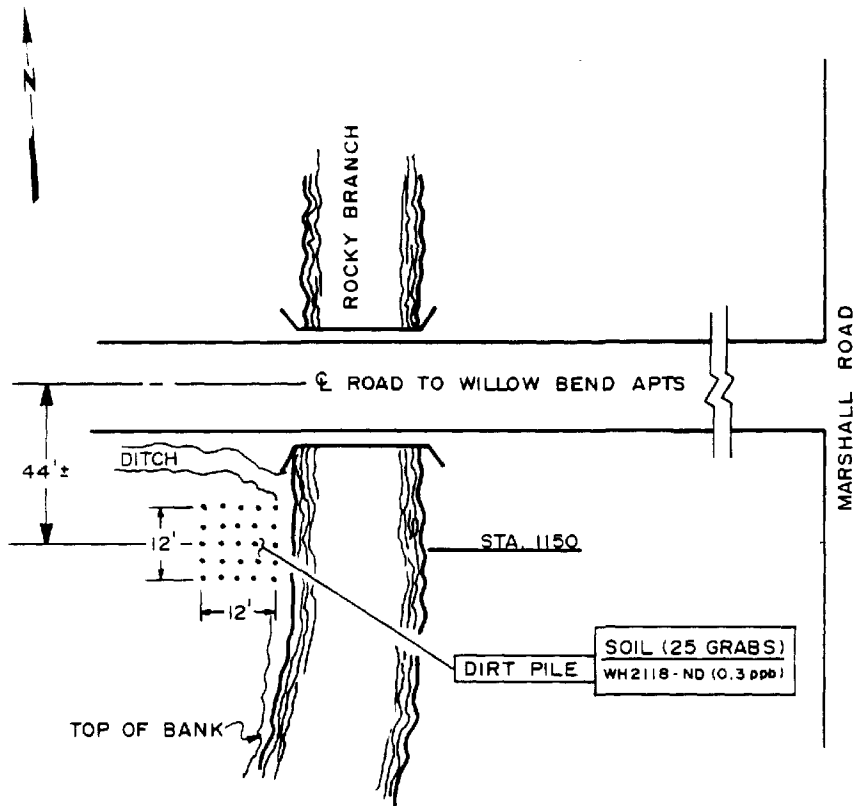
ORIG - Original sample of quality control pair

QDU - Duplicate sample of quality control pair

QDM - Composite mixture check

A separate 12 by 12 foot fine grid was established in the area including the mound of dirt (see Figure 7). Twenty-five grab soil samples were collected, each 3 feet apart within the grid; the sample aliquots were composited to generate one sample for analysis. As Figures 6 and 7 show, all the re-sample results were "not detected" at a level of 0.300 ppb TCDD.

0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25



LEGEND:
 (X.XX) - TCDD
 ND - NOT DETECTED

FIGURE 7
 DIRT PILE AT
 WILLOW BEND APTS
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5.2.2 Area C: "Residential"

For the purposes of this report, the section of Area C where private residential property is located within the sampling area is defined as the "residential" area. The fine grid sampling strategy used for the residential property in this area was generally the same as that used for Area C "non-residential" (see Section 5.2.1), except that the grid unit dimensions were 20 feet by property line. Figure 8 diagrammatically presents a typical sampling grid in the residential area adjacent to the west leg of Rocky Branch Creek. Adjacent to the east leg, samples were collected at points north, south and east of the reference point.

As in the "non-residential" area, two 20-foot wide grids (rows) were sampled initially. The three composite samples from Row 1 were analyzed first. If the semi-isomer specific TCDD level was 1 ppb or greater in any of the three samples, Row 2 composite samples were analyzed. In all cases, samples with TCDD concentrations of 1 ppb or greater were also analyzed for 2,3,7,8-TCDD. If results for Row 2 composite samples were 1 ppb or greater, two additional grids, further away from the creek were sampled and analyzed one row at a time until sample results indicated less than 1 ppb TCDD.

Included in the sampling plan for the "residential" area were areas adjacent to and including manholes. The grid sampling plan used for manhole areas differed slightly from the plan described above for residential property. The differences included: (1) the distance between the reference point markers which determined distances to aliquot collection locations; and (2) the overall dimensions of the grid. Both measurements were determined at the specific location and were dependent on site-specific needs. All other factors (e.g., number of composites collected) remained the same.

For greater detail in showing grid dimensions and sample aliquot collection locations, each private residential property and manhole sampled is presented in an individual figure. The following residential properties were sampled: 2111, 2113 and 2112 West Lane; 2203 and 2202 Braden Street; 618 and 620 Alta Cove; 601, 605, 609, 613, 617, 621, 625 and 629 Brookhaven Court; and 1703 and 1704 Hill Road. Figure 3 shows the location of each residential property relative to other locations in Area C.

WEST ROCKY
BRANCH

NOTE:

SAMPLE - COMPOSITE OF GRABS
TAKEN AT 10' INTERVALS IN A
GRID 20' x PROPERTY LINES. EACH
GRID HAS 3 SAMPLES, ONE AT
EACH NORTH, SOUTH OR WEST
LOCATION - 2.5' FROM REFERENCE
POINT. (EAST LEG HAS EAST
LOCATIONS).

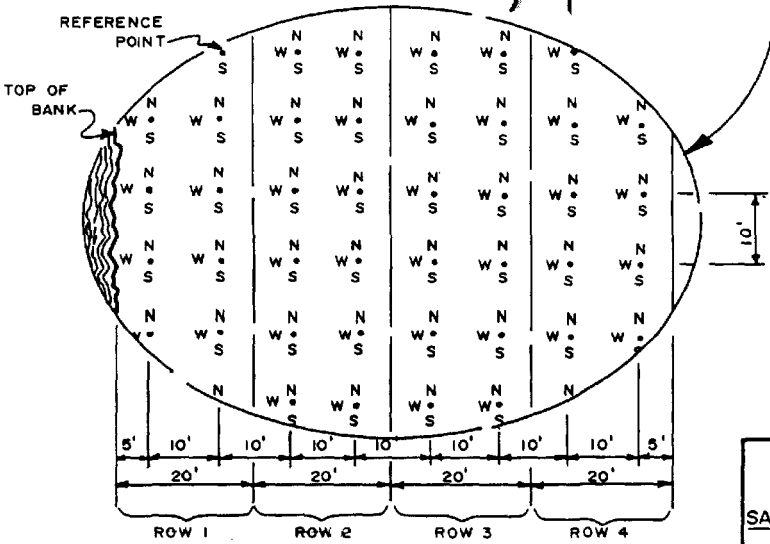
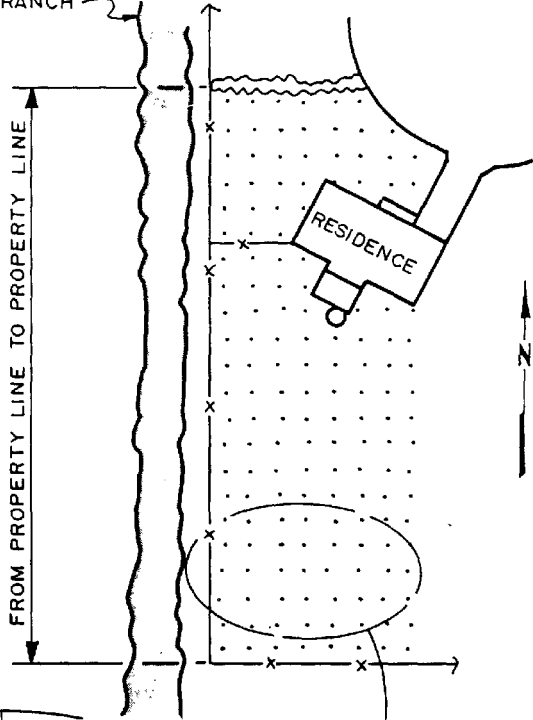


FIGURE 8
RESIDENTIAL
SAMPLING GRID PATTERN

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Table 6 and Figures 9 through 15 (pages 35 through 42) present analytical results for residential property located adjacent to the west leg of Rocky Branch Creek. Soil composite samples taken from the yards of three residential properties along the west leg (2203 Braden, 2202 Braden and 2112 West Lane) showed the presence of dioxin; the highest concentration detected was 4 ppb. The extent of contamination in each of these yards was determined by sampling and analyses until a section with less than 1 ppb dioxin was reached. All other properties adjacent to the west leg had soil with 2,3,7,8-TCDD concentrations less than 1 ppb.

Table 7 and Figures 16 through 24 (pages 43 through 52) present analytical results for residential properties adjacent to the east leg of Rocky Branch Creek with the exception of 1704 Hill Road. Soil samples from the properties along the east leg with the exception of 1704 Hill contained less than 0.300 ppb dioxin.

Descriptions of the sampling done at 1704 Hill Road and contiguous areas are presented on pages 53 through 58. A table and three figures present the analytical results and a diagrammatic representation of the grids and locations sampled at this location.

Descriptions of sampling and analytical results for additional manhole areas in Area C are presented on pages 58 through 61.

TABLE 6

 AREA C: "RESIDENTIAL" AREA ALONG WEST LEG OF ROCKY BRANCH CREEK
 SUMMARY OF RESULTS OF DIOXIN ANALYSES OF SOIL SAMPLES

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
WH2074	2111 West Lane, Row 1, North	0.300 U	N/A
WH2075	2111 West Lane, Row 1, South	0.300 U	N/A
WH2073	2111 West Lane, Row 1, West	0.546	N/A
WH2067	2113 West Lane, Row 1, North	0.300 U	N/A
WH2068	2113 West Lane, Row 1, South	0.300 U	N/A
WH2065	2113 West Lane, Row 1, West (ORIG)	0.300 U	N/A
WH2066	2113 West Lane, Row 1, West (QDU of WH2065)	0.300 U	N/A
WH2080	2112 West Lane, Row 1, North	3.498	3.43
WH2081	2112 West Lane, Row 1, South	4.313	4.18
WH2082	2112 West Lane, Row 1, West	3.528	3.59
WH2085	2112 West Lane, Row 2, North	1.343	1.24
WH2083	2112 West Lane, Row 2, South	2.702	2.74
WH2084	2112 West Lane, Row 2, West	1.637	1.51
WH2277	2112 West Lane, Row 3, North	0.539	N/A
WH2278	2112 West Lane, Row 3, South	0.716	N/A
WH2282	2112 West Lane, Row 3, West	0.575	N/A
WH2087	2203 Braden, Row 1, North	1.911	1.87
WH2088	2203 Braden, Row 1, South	2.497	2.39
WH2086	2203 Braden, Row 1, West	2.329	2.27
WH2089	2203 Braden, Row 2, North	1.253	1.20
WH2091	2203 Braden, Row 2, South	1.265	1.21
WH2090	2203 Braden, Row 2, West	1.080	1.11
WH2287	2203 Braden, Row 3, North	0.300 U	N/A
WH2286	2203 Braden, Row 3, South	1.621	0.33
WH2289	2203 Braden, Row 3, West	0.300 U	N/A
WH2292	2203 Braden, Row 4, North	0.300 U	N/A
WH2291	2203 Braden, Row 4, South	0.300 U	N/A
WH2290	2203 Braden, Row 4, West	0.300 U	N/A
WH2094	2202 Braden, Row 1, North	0.922	1.00
WH2096	2202 Braden, Row 1, South	1.210	1.16
WH2092	2202 Braden, Row 1, West (ORIG)	1.727	1.66
WH2093	2202 Braden, Row 1, West (QDU of WH2092)	1.443	1.41
WH2097	2202 Braden, Row 2, North	0.896	N/A
WH2099	2202 Braden, Row 2, South	0.710	N/A
WH2098	2202 Braden, Row 2, West	0.906	N/A
WH2295	2202 Braden, Row 3, North	0.300 U	N/A
WH2293	2202 Braden, Row 3, South	0.387	N/A
WH2294	2202 Braden, Row 3, West	0.300 U	N/A
WH2106	618 Alta Cove, Row 1, North	0.838	N/A
WH2107	618 Alta Cove, Row 1, South	1.206	0.78
WH2103	618 Alta Cove, Row 1, West (ORIG)	0.631	N/A
WH2104	618 Alta Cove, Row 1, West (QDU of WH2103)	0.629	N/A
WH2109	618 Alta Cove, Row 2, North	0.424	N/A
WH2110	618 Alta Cove, Row 2, South	0.430	N/A
WH2108	618 Alta Cove, Row 2, West	0.385	N/A
WH2111	620 Alta Cove, Row 1, North	0.382	N/A
WH2113	620 Alta Cove, Row 1, South	0.566	N/A
WH2112	620 Alta Cove, Row 1, West	0.482	N/A

U - Not detected at stated concentration

N/A - Not applicable

ORIG - Original sample of quality control pair

QDU - Duplicate sample of quality control pair

LEGEND:

(X.XX)-TCDD

ND - NOT DETECTED

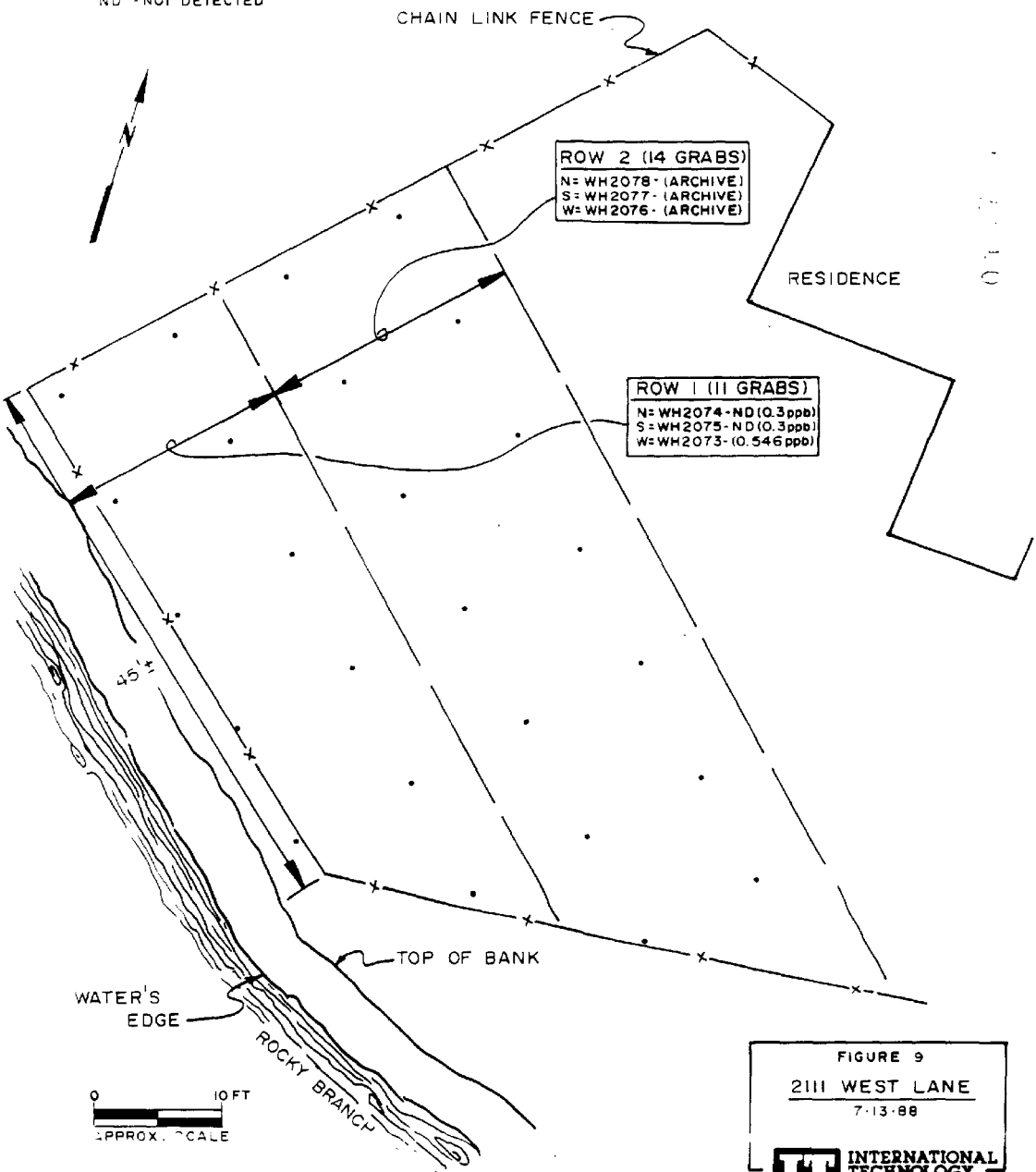


FIGURE 9
2111 WEST LANE
7-13-88
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LEGEND:

(X.XX) -- TCDD

ND -- NOT DETECTED

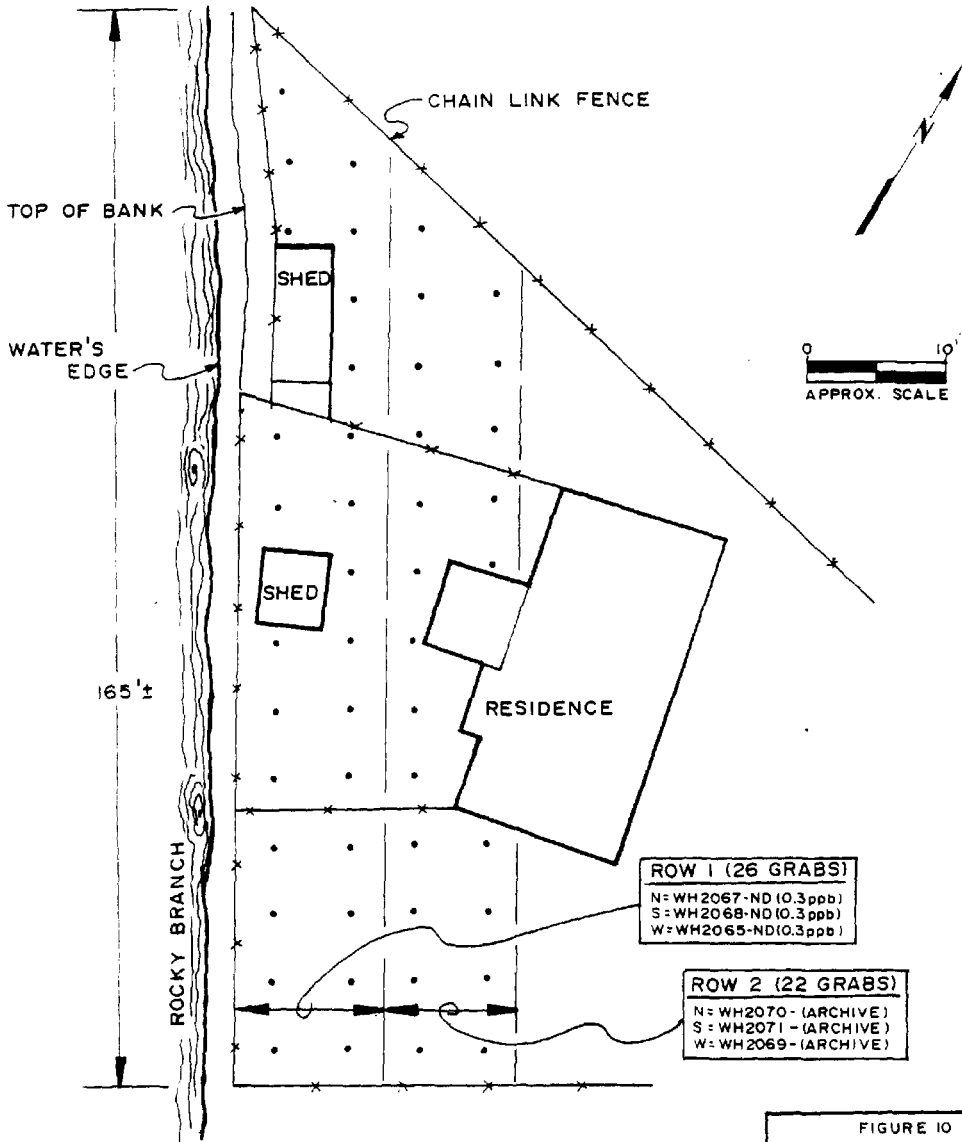


FIGURE 10
2113 WEST LANE
7-13-88

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LEGEND:

(X.XX) - TCDD

CX.XXJ - 2,3,7,8 - TCDD

ROW 3 (32 GRABS)

N = WH2277 - (0.539 ppb)
S = WH2278 - (0.716 ppb)
W = WH2282 - (0.575 ppb)

ROW 4 (33 GRABS)

N = WH2283 - (ARCHIVE)
S = WH2284 - (ARCHIVE)
W = WH2285 - (ARCHIVE)

ROW 1 (15 GRABS)

N = WH2080 - (3.498 ppb) [3.43 ppb]
S = WH2081 - (4.313 ppb) [4.18 ppb]
W = WH2082 - (3.528 ppb) [3.59 ppb]

ROW 2 (22 GRABS)

N = WH2085 - (1.343 ppb) [1.24 ppb]
S = WH2083 - (2.702 ppb) [2.74 ppb]
W = WH2084 - (1.637 ppb) [1.51 ppb]

CHAIN LINK FENCE

RESIDENCE

60'±

TOP OF BANK

WATER'S EDGE

ROCKY BRANCH

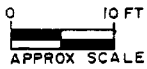


FIGURE II

2112 WEST LANE

7-14-88 (ROWS 1,2)

7-26-88 (ROWS 3,4)



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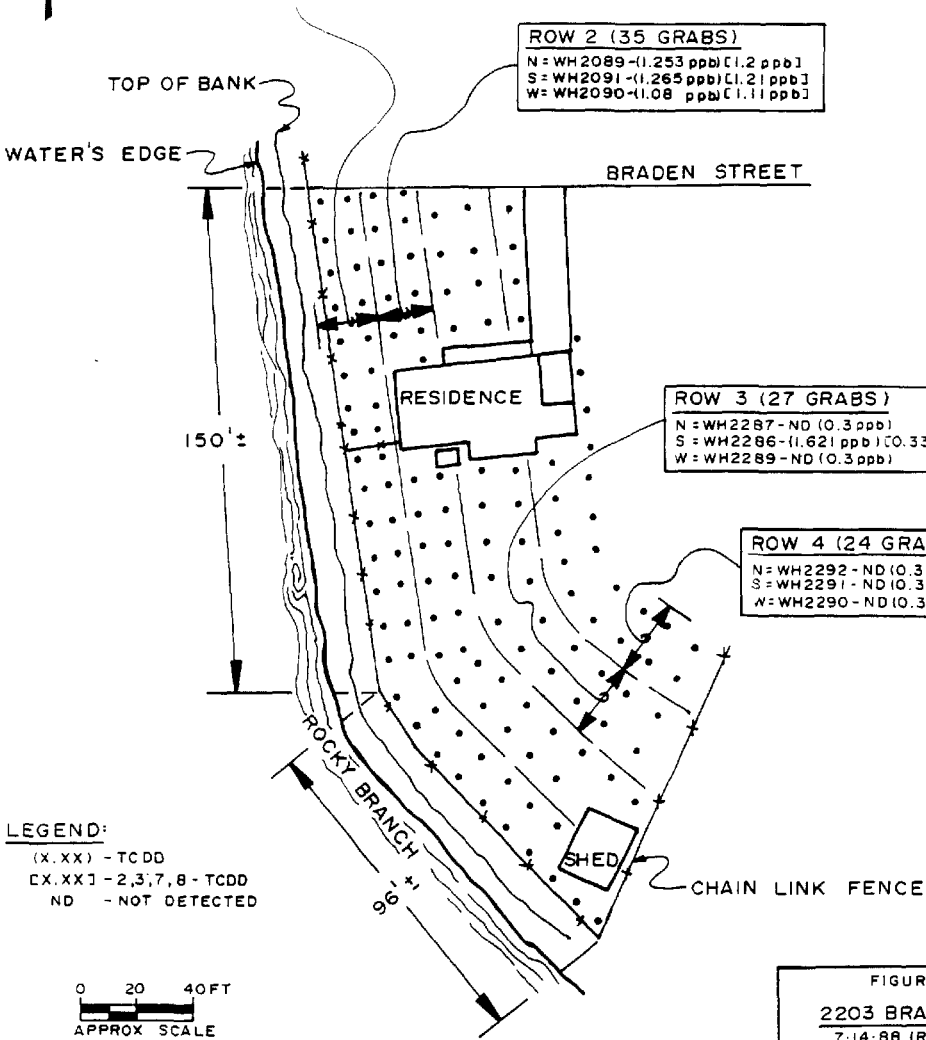


ROW 1 (46 GRABS)
 N=WH2087-(1.911 ppb) [1.87 ppb]
 S=WH2088-(2.497 ppb) [2.39 ppb]
 W=WH2086-(2.329 ppb) [2.27 ppb]

ROW 2 (35 GRABS)
 N=WH2089-(1.253 ppb) [1.2 ppb]
 S=WH2091-(1.265 ppb) [1.21 ppb]
 W=WH2090-(1.08 ppb) [1.11 ppb]

ROW 3 (27 GRABS)
 N=WH2287-ND (0.3 ppb)
 S=WH2286-(1.621 ppb) [0.33 ppb]
 W=WH2289-ND (0.3 ppb)

ROW 4 (24 GRABS)
 N=WH2292-ND (0.3 ppb)
 S=WH2291-ND (0.3 ppb)
 W=WH2290-ND (0.3 ppb)



LEGEND:
 (X.XX) - TCDD
 CX.XX] - 2,3,7,8 - TCDD
 ND - NOT DETECTED

FIGURE 12
2203 BRADEN ST
 7-14-88 (ROWS 1,2)
 7-26-88 (ROWS 3,4)
INTERNATIONAL TECHNOLOGY CORPORATION

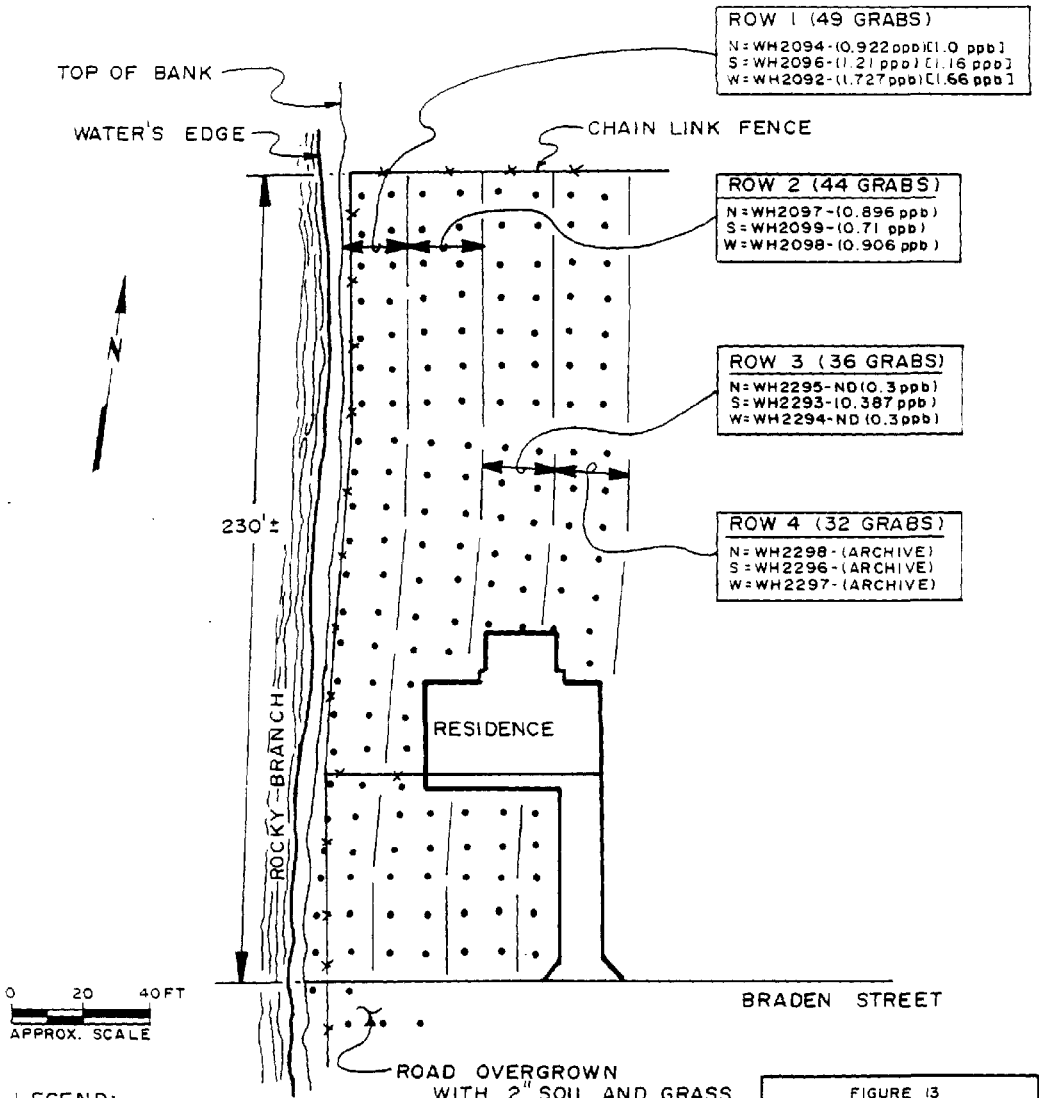
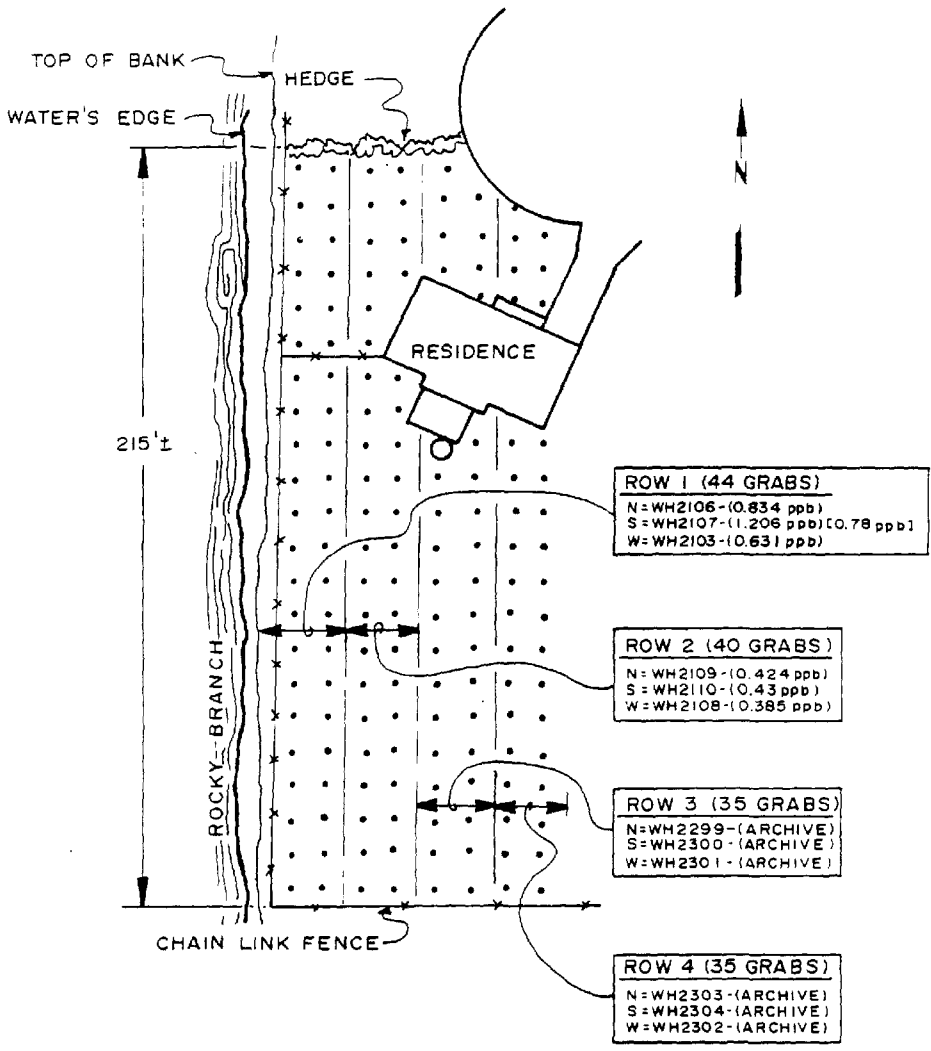


FIGURE 13
 2202 BRADEN ST
 7-14-88 (ROWS 1,2)
 7-26-88 (ROWS 3,4)

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LEGEND:

- (X.XX) - TCDD
- {X.XX} - 2,3,7,8 TCDD

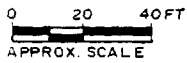


FIGURE 14
618 ALTA COVE
 7-15-88 (ROWS 1,2)
 7-26-88 (ROWS 3,4)

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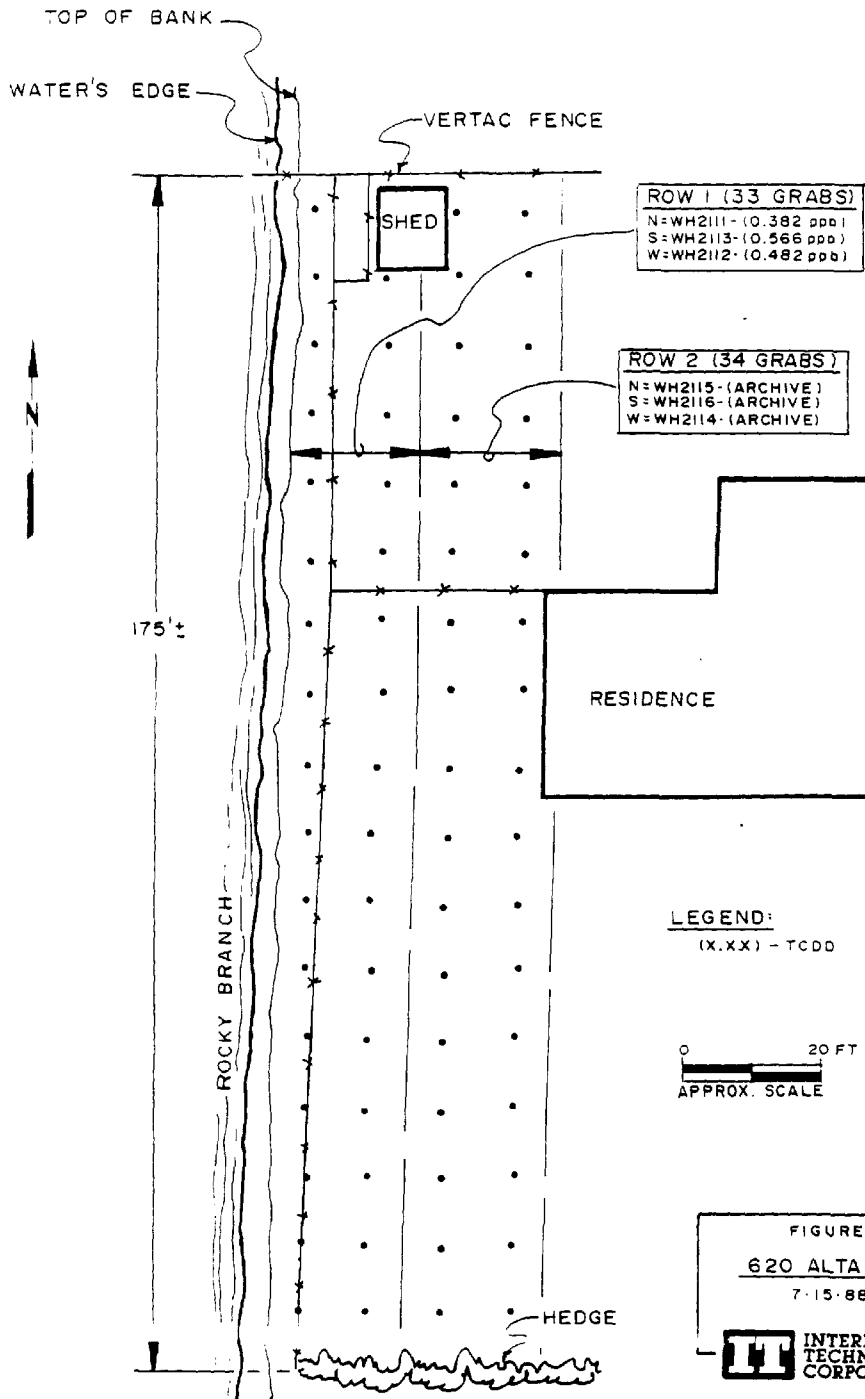


TABLE 7

AREA C: "RESIDENTIAL" AREA ALONG EAST LEG OF ROCKY BRANCH CREEK
SUMMARY OF RESULTS OF DIOXIN ANALYSES OF SOIL SAMPLES

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
WH2199	601 Brookhaven, Row 1, North	0.300 U	N/A
WH2198	601 Brookhaven, Row 1, South	0.300 U	N/A
WH2197	601 Brookhaven, Row 1, East	0.300 U	N/A
WH2190	605 Brookhaven, Row 1, North (ORIG)	0.300 U	N/A
WH2191	605 Brookhaven, Row 1, North (QDU of WH2190)	0.300 U	N/A
WH2193	605 Brookhaven, Row 1, South	0.300 U	N/A
WH2189	605 Brookhaven, Row 1, East	0.300 U	N/A
WH2184	609 Brookhaven, Row 1, North	0.300 U	N/A
WH2185	609 Brookhaven, Row 1, South	0.300 U	N/A
WH2183	609 Brookhaven, Row 1, East	0.300 U	N/A
WH2177	613 Brookhaven, Row 1, North	0.300 U	N/A
WH2178	613 Brookhaven, Row 1, South	0.300 U	N/A
WH2179	613 Brookhaven, Row 1, East	0.300 U	N/A
WH2170	617 Brookhaven, Row 1, North	0.300 U	N/A
WH2173	617 Brookhaven, Row 1, South	0.300 U	N/A
WH2169	617 Brookhaven, Row 1, East	0.300 U	N/A
WH2162	621 Brookhaven, Row 1, North	0.300 U	N/A
WH2164	621 Brookhaven, Row 1, South	0.300 U	N/A
WH2163	621 Brookhaven, Row 1, East	0.300 U	N/A
WH2150	625 Brookhaven, Row 1, North	0.300 U	N/A
WH2149	625 Brookhaven, Row 1, South (ORIG)	0.300 U	N/A
WH2156	625 Brookhaven, Row 1, South (QDU of WH2149)	0.300 U	N/A
WH2157	625 Brookhaven, Row 1, South (QDU of WH2156)	0.300 U	N/A
WH2151	625 Brookhaven, Row 1, East (ORIG)	0.300 U	N/A
WH2152A	625 Brookhaven, Row 1, East (QDM of WH2151)	0.300 U	N/A
WH2153B	625 Brookhaven, Row 1, East (QDM of WH2151)	0.300 U	N/A
WH2154C	625 Brookhaven, Row 1, East (QDM of WH2151)	0.300 U	N/A
WH2155D	625 Brookhaven, Row 1, East (QDM of WH2151)	0.300 U	N/A
WH2158	625 Brookhaven, Row 1, East (QDU of WH2151)	0.300 U	N/A
WH2143	629 Brookhaven, Row 1, North	0.300 U	N/A
WH2146	629 Brookhaven, Row 1, South	0.300 U	N/A
WH2144	629 Brookhaven, Row 1, East	0.300 U	N/A
WH2138	1703 Hill, Row 1, North	0.300 U	N/A
WH2137	1703 Hill, Row 1, South	0.300 U	N/A
WH2139	1703 Hill, Row 1, East	0.300 U	N/A

U - Not detected at stated concentration

N/A - Not applicable

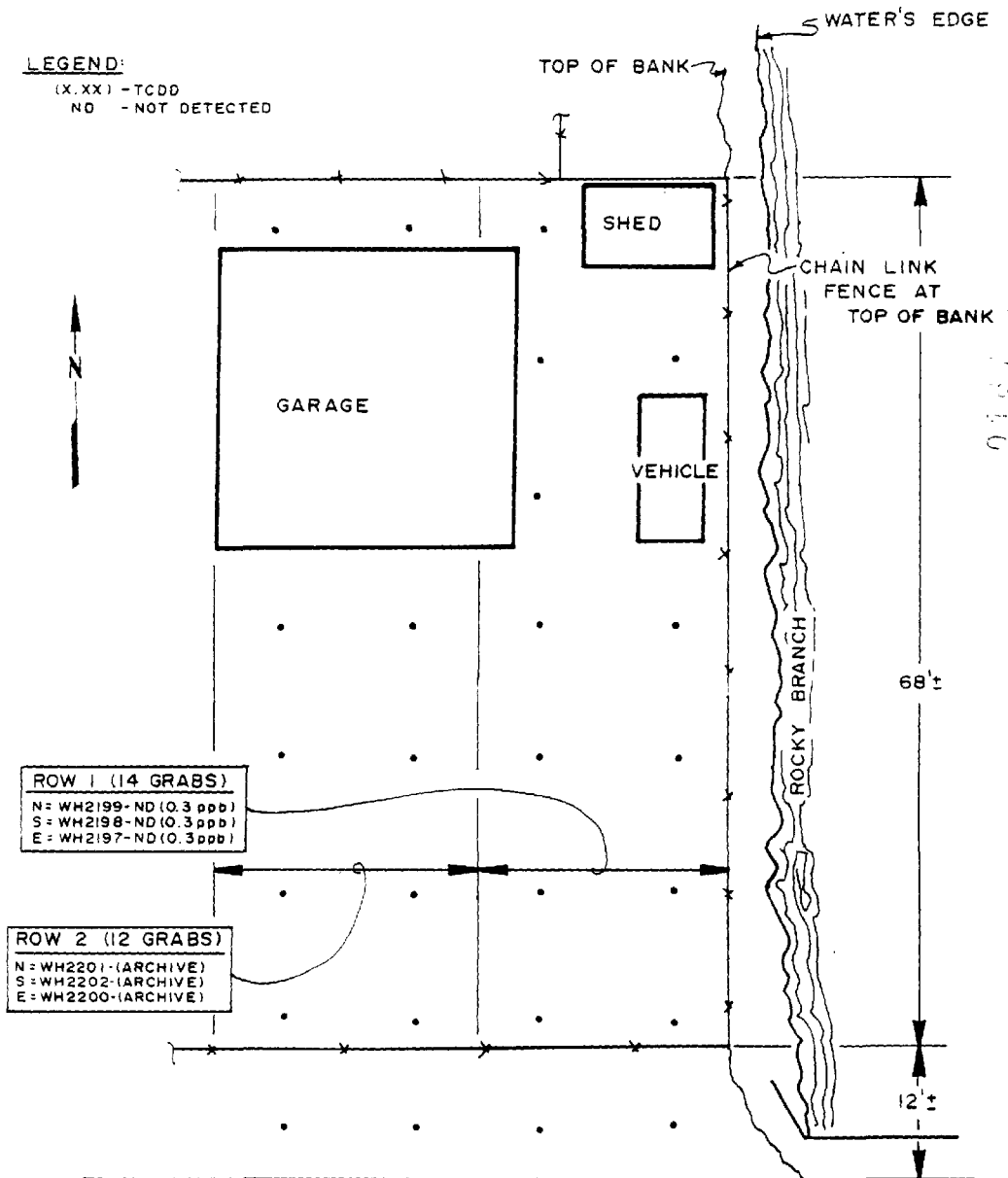
ORIG - Original sample of quality control pair

QDU - Duplicate sample of quality control pair

QDM - Composite mixture check

LEGEND:

(X.XX) - TCDD
ND - NOT DETECTED



ROW 1 (14 GRABS)
N = WH2199 - ND (0.3 ppb)
S = WH2198 - ND (0.3 ppb)
E = WH2197 - ND (0.3 ppb)

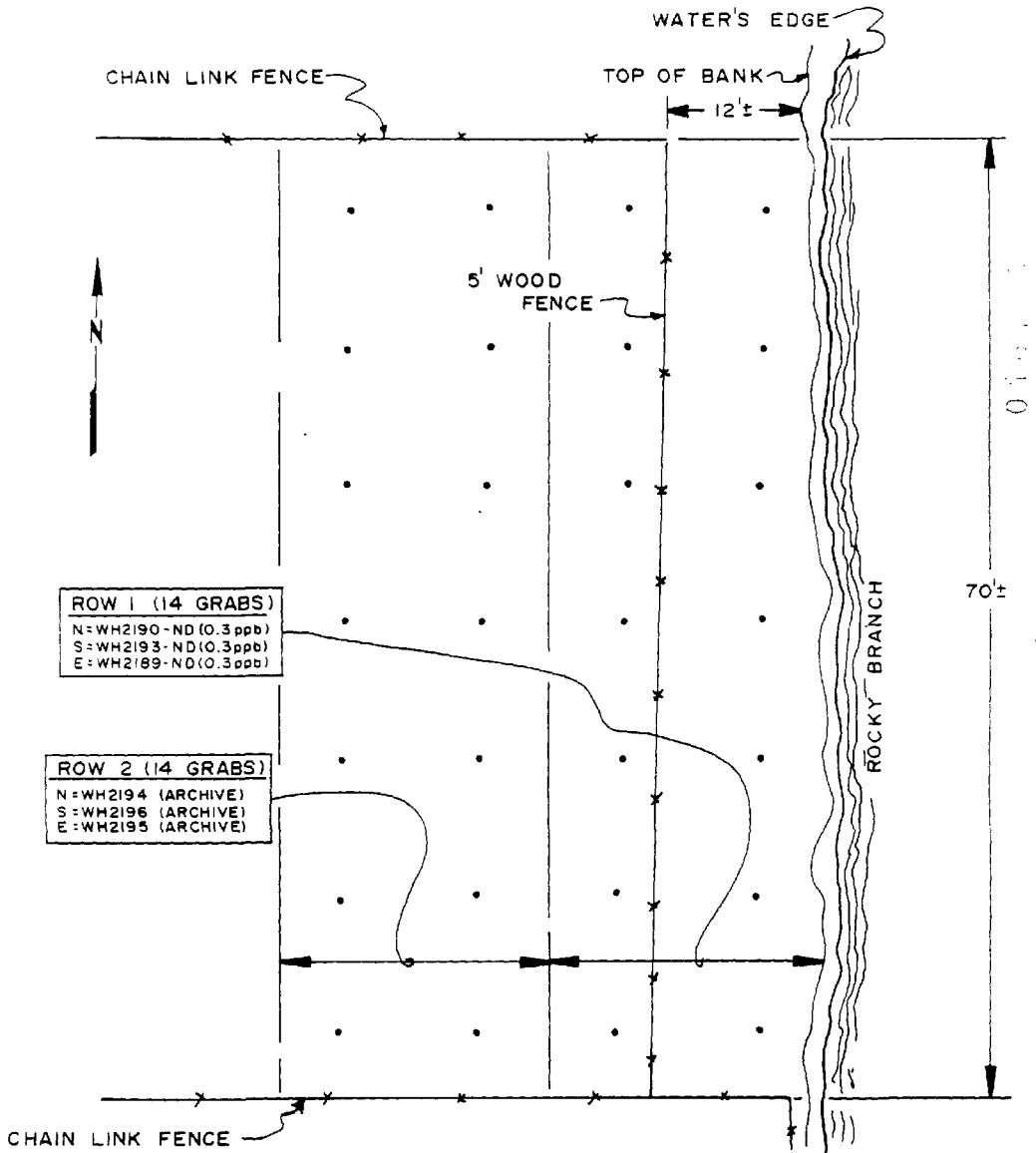
ROW 2 (12 GRABS)
N = WH2201 - (ARCHIVE)
S = WH2202 - (ARCHIVE)
E = WH2200 - (ARCHIVE)

BRADEN STREET



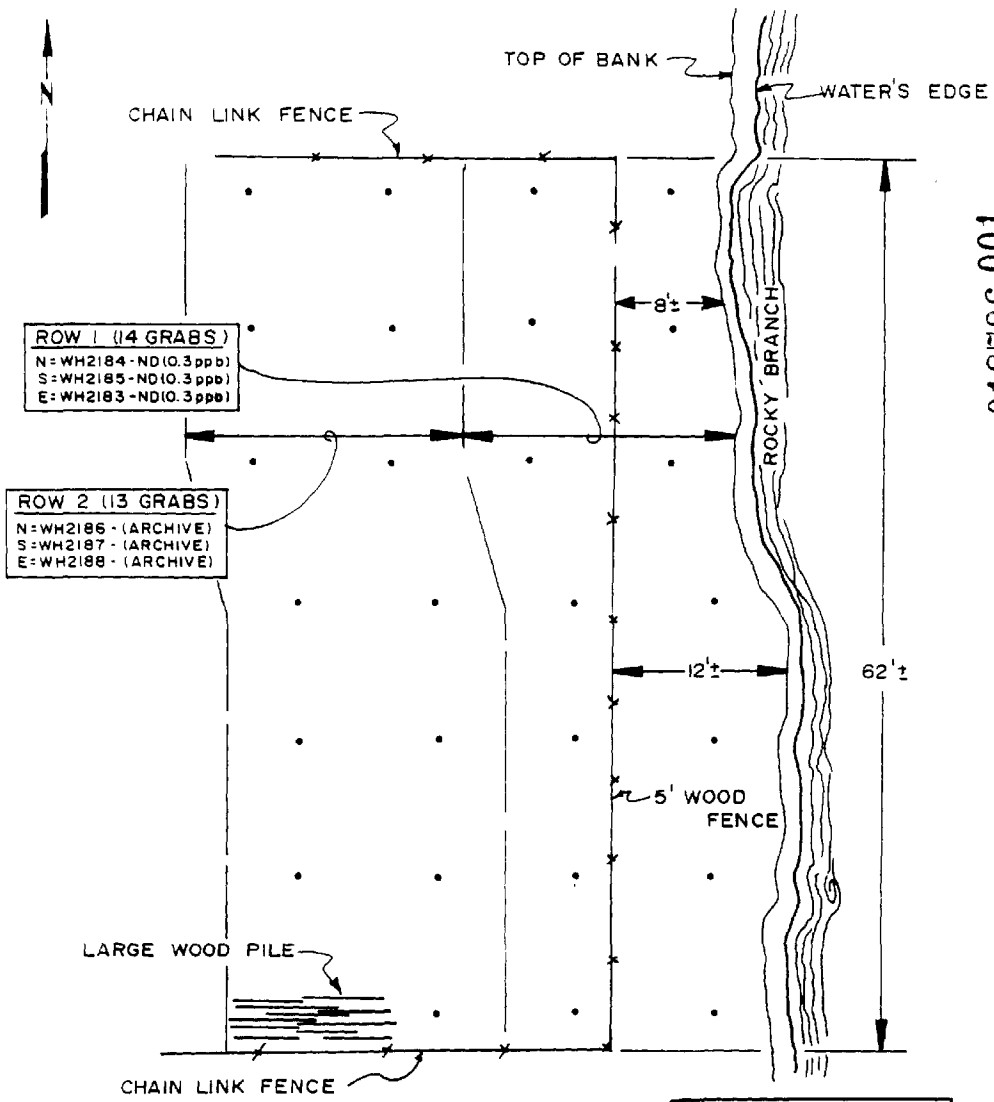
FIGURE 16
601 BROOKHAVEN CT
7-19-88

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LEGEND:
(X.XX) - TCDD
ND - NOT DETECTED

FIGURE 17
605 BROOKHAVEN CT
7-19-88
INTERNATIONAL TECHNOLOGY CORPORATION



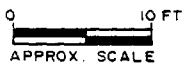
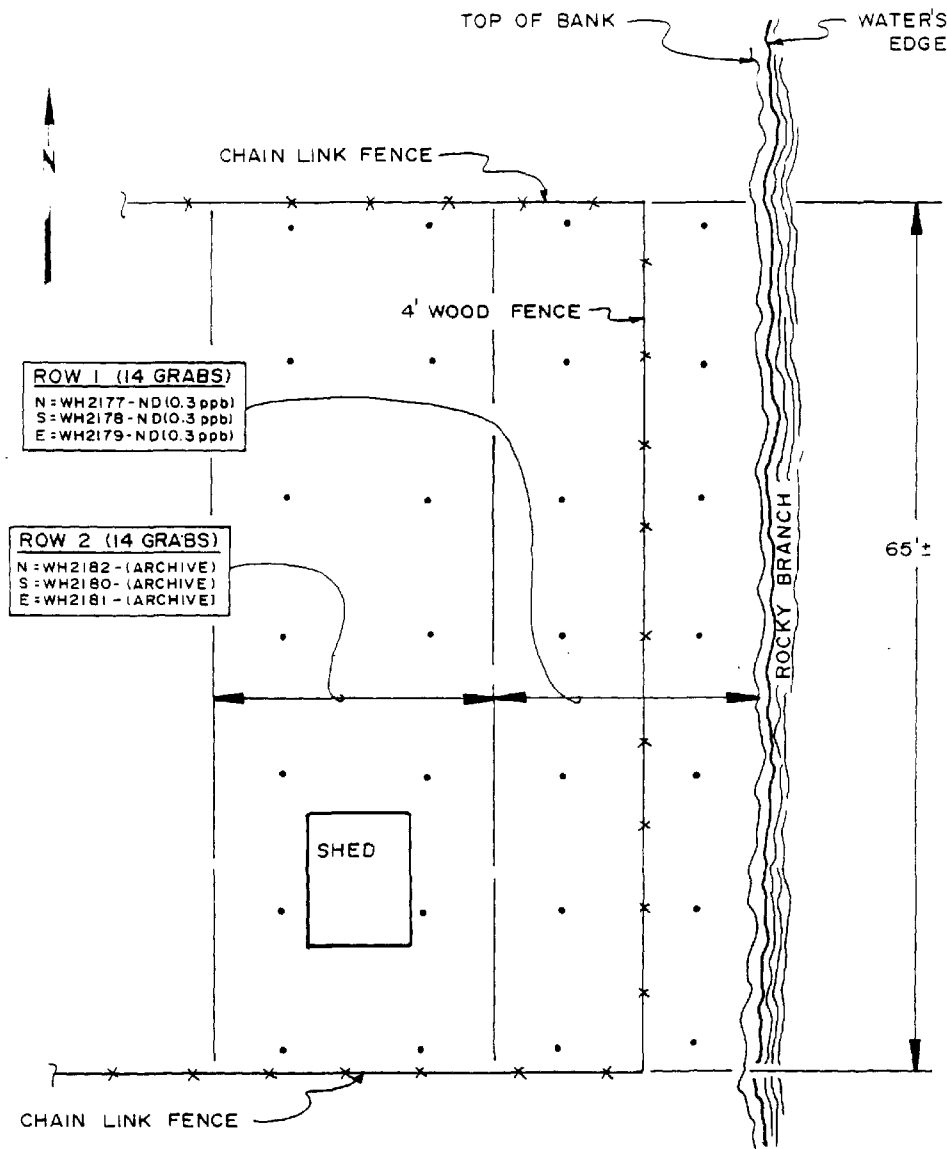
018796 001



LEGEND:
 (X.XX) - TCDD
 ND - NOT DETECTED

FIGURE 18
 609 BROOKHAVEN CT
 7.19.88

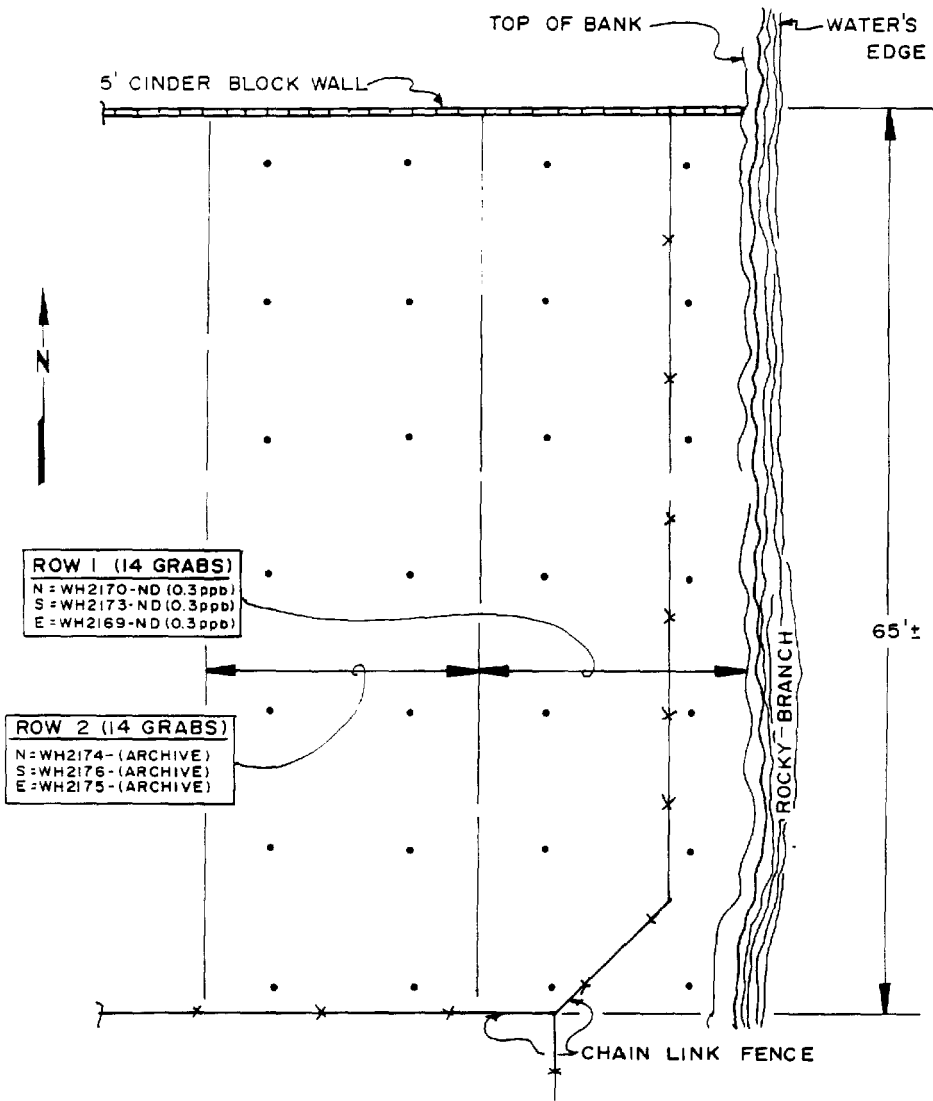
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 CORPORATION



LEGEND:
 (X,XX) - TCDD
 ND - NOT DETECTED

FIGURE 19
 613 BROOKHAVEN CT
 7-19-88

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0110

FIGURE 20
 617 BROOKHAVEN CT
 7-19-88

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LEGEND:

(X,XX) - TCDD

ND - NOT DETECTED

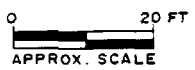
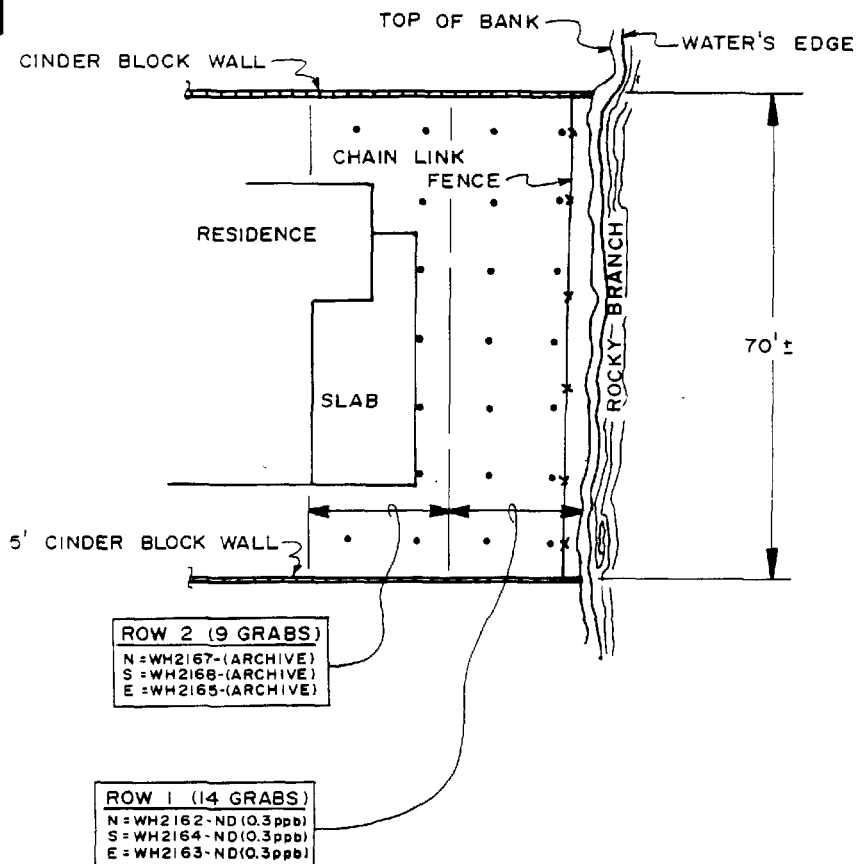
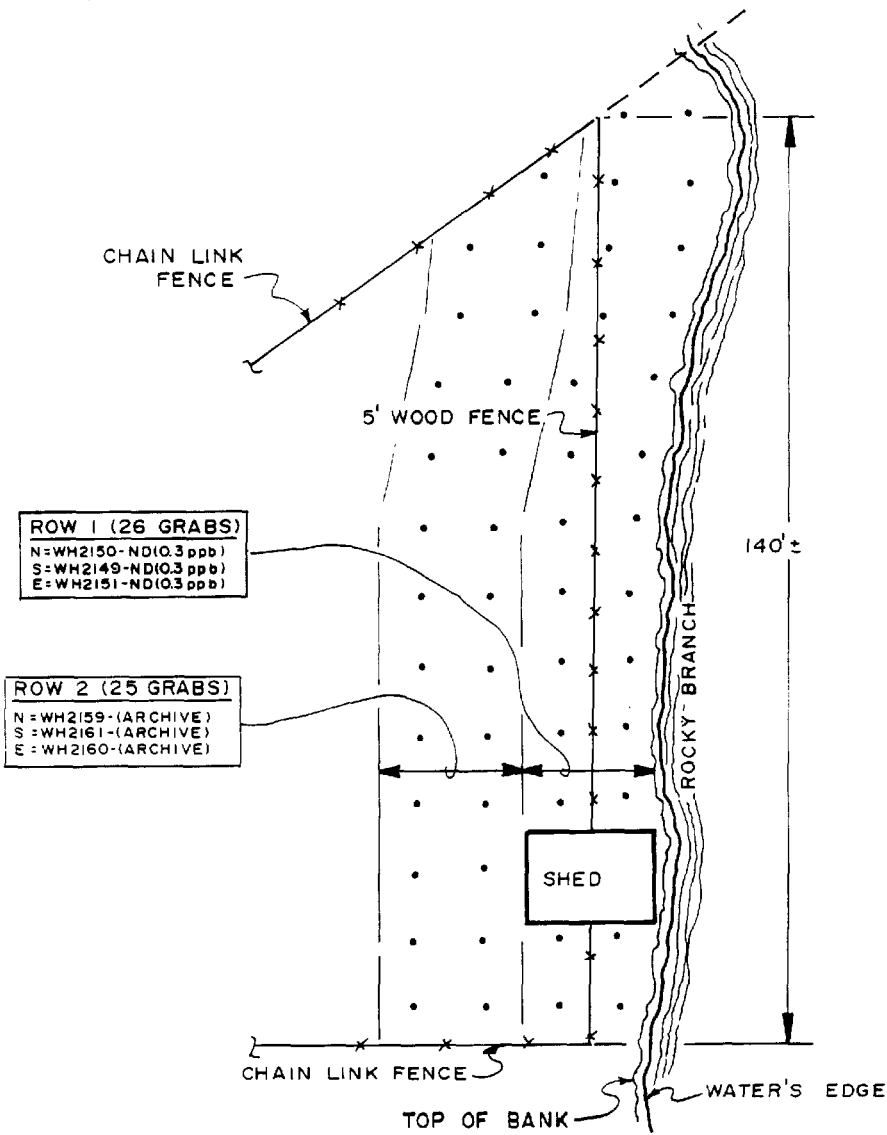


FIGURE 21

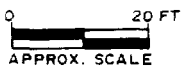
621 BROOKHAVEN CT

7-18-88

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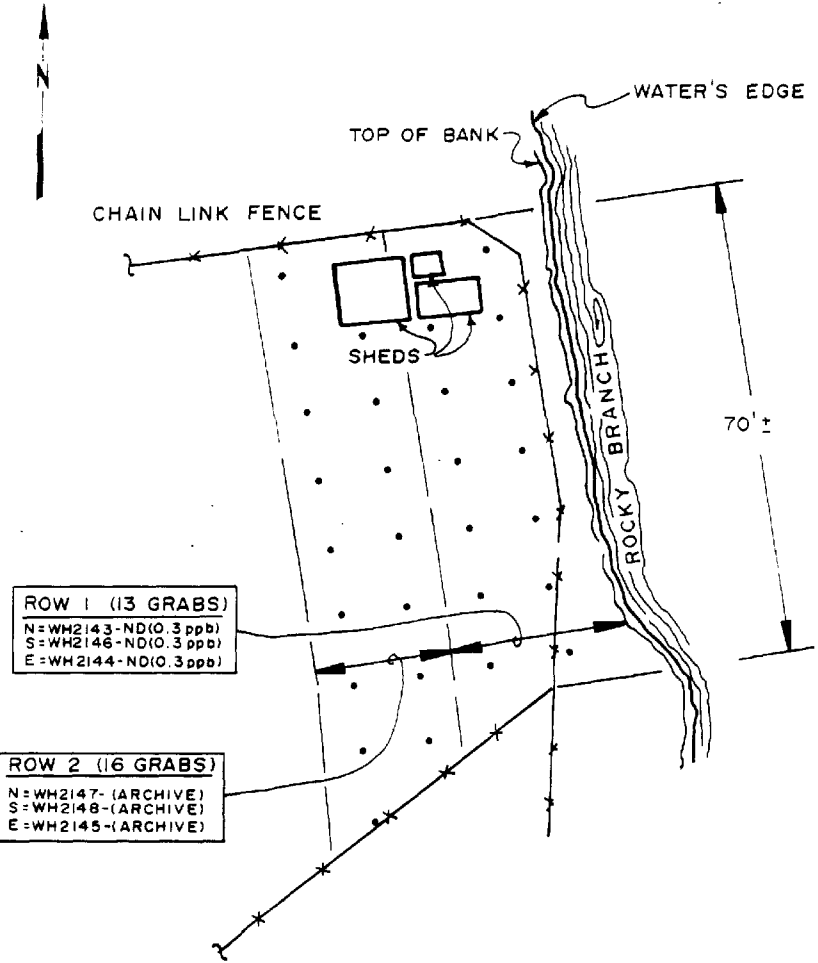
018799 001



LEGEND:
(X.XX) - TCDD
ND - NOT DETECTED

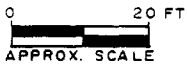
FIGURE 22
625 BROOKHAVEN CT
7-18-88

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ROW 1 (13 GRABS)
 N = WH2143 - ND(0.3 ppb)
 S = WH2146 - ND(0.3 ppb)
 E = WH2144 - ND(0.3 ppb)

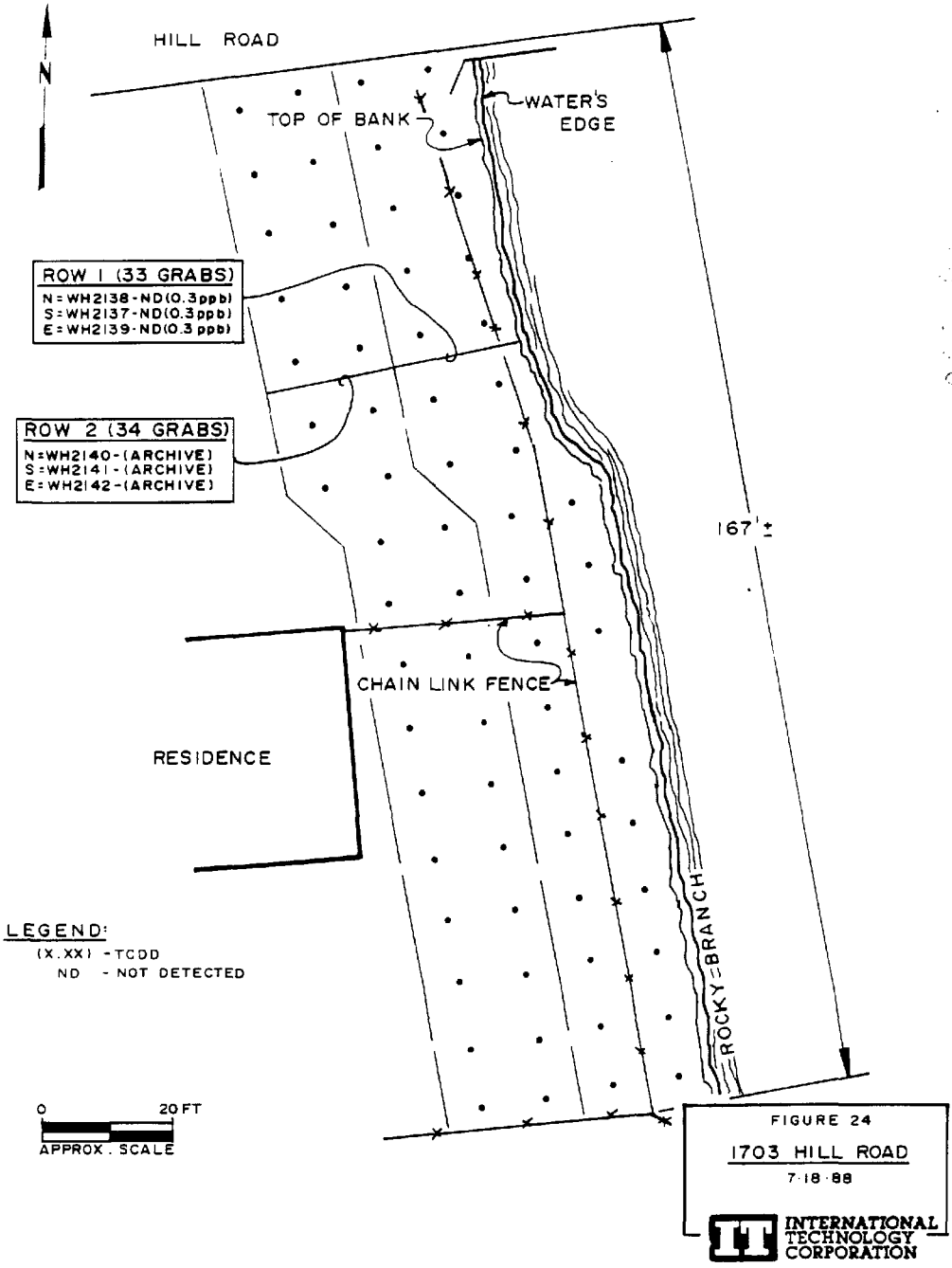
ROW 2 (16 GRABS)
 N = WH2147 - (ARCHIVE)
 S = WH2148 - (ARCHIVE)
 E = WH2145 - (ARCHIVE)



LEGEND:
 (X,XX) - TCDD
 ND - NOT DETECTED

FIGURE 23
 629 BROOKHAVEN CT
 7-18-88

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The property at 1704 Hill Road was included in the sampling plan as one of the residences adjacent to the east leg of Rocky Branch Creek. Located at 1704 Hill Road is manhole number 2745 which was also included in the sampling plan. The initial sampling at this location was done at: (1) two 20-foot wide grids (rows) adjacent to the creek running the north-south length of the property; and (2) a grid, which included a ditch, eastward from the manhole to the western edge of Row 2. Analytical results from the original grid for the manhole and for Rows 1 and 2 resulted in further sampling on this property (Table 8 and Figure 25).

The second phase of sampling done was to establish and sample Rows 3 and 4 in the yard and to establish and sample grids north and south of the original grid at manhole 2745. Analytical results obtained from this second sampling phase (Table 8 and Figure 25) led to more sampling at 1704 Hill Road and contiguous locations to better delineate the extent and degree of contamination.

The sections originally sampled as Rows 1 and 2, divided into segments north and south of the ditch, and a grid encompassing only the eastern part of the ditch extending from manhole number 2745 to Rocky Branch were sampled (Table 8 and Figure 26).

After examination of the land west and north of 1704 Hill Road and discussions between the EPA RPM and Hercules Incorporated, the section of the ditch west of the manhole and a low area on the Vertac plant property immediately north of the western end of the ditch were sampled (Table 8 and Figure 25).

Areas around other manholes which are part of the same sewage collection (interceptor) line as manhole number 2745 were also sampled. These manholes are number 1152, north of 1704 Hill Road and near Rocky Branch Creek; number 2741, located at 1712 Hill Road; and number 2740, located at 1804 Hill Road. In addition, a ditch at the northern edge of the 1712 and 1804 Hill Road properties was also sampled (Table 8; Figures 25 and 27).

TABLE 8

AREA C: 1704 HILL ROAD and GRIDS AT MANHOLE NUMBERS 2745, 1152, 2741 and 2740
SUMMARY OF RESULTS OF DIOXIN ANALYSES OF SOIL SAMPLES

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
WH2125	1704 Hill, Row 1, North*	2.805	2.78
WH2123	1704 Hill, Row 1, South*	1.291	1.31
WH2124	1704 Hill, Row 1, East*	1.843	1.83
WH2325	1704 Hill, Row 1, 30 ft south of ditch to Hill road, North**	2.654	2.66
WH2322	1704 Hill, Row 1, 30 ft south of ditch to Hill road, South**	3.682	3.65
WH2321	1704 Hill, Row 1, 30 ft south of ditch to Hill road, West (ORIG)**	1.775	1.88
WH2324	1704 Hill, Row 1, 30 ft south of ditch to Hill road, West (QDU of WH2321)	2.388	2.30
WH2127	1704 Hill, Row 2, North*	2.094	2.08
WH2126	1704 Hill, Row 2, South*	3.871	5.97
WH2128	1704 Hill, Row 2, East*	3.139	4.61
WH2327	1704 Hill, Row 2, 30 ft south of ditch to Hill road, North**	5.985	5.76
WH2328	1704 Hill, Row 2, 30 ft south of ditch to Hill road, South**	11.397	12.32
WH2326	1704 Hill, Row 2, 30 ft south of ditch to Hill road, West**	10.427	10.92
WH2334	North of ditch, adjacent to Rocky Branch, North**	0.335	N/A
WH2336	North of ditch, adjacent to Rocky Branch, South**	0.334	N/A
WH2337	North of ditch, adjacent to Rocky Branch, West**	0.372	N/A
WH2305	1704 Hill, Row 3, North*	3.077	1.82
WH2306	1704 Hill, Row 3, South*	0.949	2.44
WH2307	1704 Hill, Row 3, East*	2.503	1.69
WH2309	1704 Hill, Row 4, North*	0.300 U	N/A
WH2310	1704 Hill, Row 4, South*	0.894	N/A
WH2308	1704 Hill, Row 4, East*	0.603	N/A
WH2120	Manhole #2745, 1704 Hill, South*	5.985	11.84
WH2121	Manhole #2745, 1704 Hill, West*	7.188	7.68
WH2122	Manhole #2745, 1704 Hill, East*	6.417	6.12
WH2333	80 ft east of Manhole #2745 to Rocky Branch, North**	4.997	4.80
WH2329	80 ft east of Manhole #2745 to Rocky Branch, South (ORIG)**	3.465	3.34
WH2332	80 ft east of Manhole #2745 to Rocky Branch, South (QDU of WH2329)	2.863	2.78
WH2330	80 ft east of Manhole #2745 to Rocky Branch, East**	3.232	3.19
WH2371	Ditch west from Manhole #2745*	41.012	54.73
WH2314	Manhole #2745, north of ditch, South (ORIG)*	2.849	3.09
WH2316	Manhole #2745, north of ditch, South (QDU of WH2314)	2.814	2.69
WH2318	Manhole #2745, north of ditch, West*	3.183	3.85
WH2317	Manhole #2745, north of ditch, East*	2.875	3.25
WH2313	Manhole #2745, 1704 Hill, south of ditch, North*	0.519	N/A
WH2311	Manhole #2745, 1704 Hill, south of ditch, West*	0.300 U	N/A
WH2312	Manhole #2745, 1704 Hill, south of ditch, East*	0.300 U	N/A
WH2354	Low area north of 1704 Hill pool, Northeast*	6.651	6.52
WH2355	Low area north of 1704 Hill pool, Northwest (ORIG)*	11.577	11.65
WH2357	Low area north of 1704 Hill pool, Northwest (QDU of WH2355)	5.128	5.10
WH2353	Low area north of 1704 Hill pool, Southwest*	6.939	7.16
WH2372	Manhole #1152, Northeast*	0.300 U	N/A
WH2374	Manhole #1152, Northwest*	0.300 U	N/A
WH2373	Manhole #1152, Southwest*	0.300 U	N/A
WH2360	Manhole #2741, 1712 Hill, South***	0.300 U	N/A
WH2359	Manhole #2741, 1712 Hill, West***	0.300 U	N/A
WH2358	Manhole #2741, 1712 Hill, East***	0.300 U	N/A
WH2362	Manhole #2740, 1804 Hill, South***	0.300 U	N/A
WH2363	Manhole #2740, 1804 Hill, West***	0.300 U	N/A
WH2365	Manhole #2740, 1804 Hill, East***	0.300 U	N/A
WH2366	Ditch in backyards of 1712 and 1804 Hill***	0.300 U	N/A

* - See Figure 25
** - See Figure 26
*** - See Figure 27

U - Not detected at stated concentration
N/A - Not applicable
ORIG - Original sample of quality control pair
QDU - Duplicate sample of quality control pair

LEGEND:

(X.XX) - TCDD
(X.XX) - 2,3,7,8-TCDD
ND - NOT DETECTED

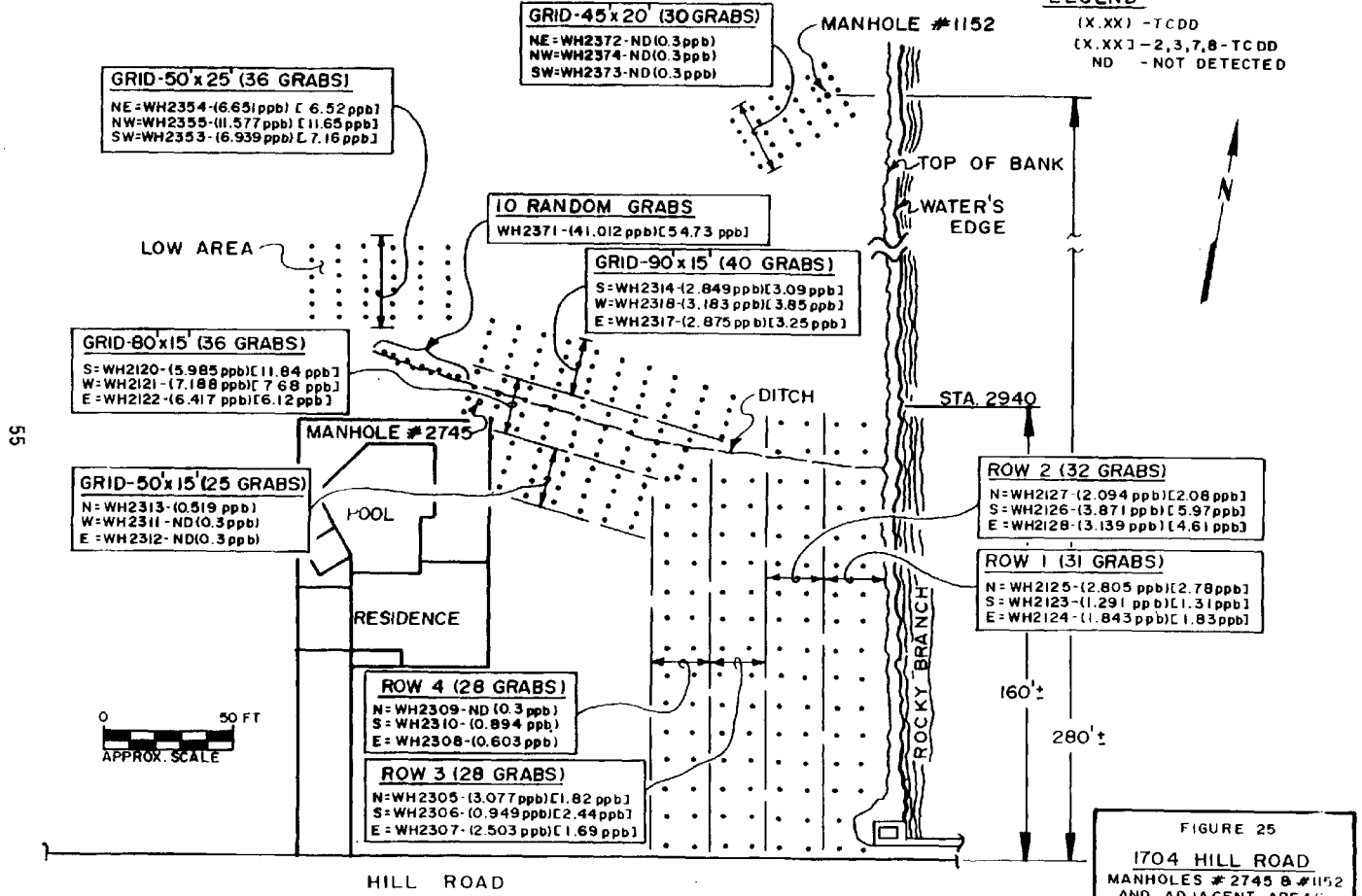


FIGURE 25
1704 HILL ROAD
MANHOLES # 2745 & #1152
AND ADJACENT AREAS
7/16/88, 7/26/88, 8/11/88 & 8/12/88
INTERNATIONAL TECHNOLOGY CORPORATION

LEGEND:

{X.XX} - TCDD

[X.XX] - 2,3,7,8-TCDD

GRID-20'x45' (24 GRABS)

N=WH2334-(0.335 ppb)

S=WH2336-(0.334 ppb)

W=WH2337-(0.372 ppb)

GRID-70'x15' (32 GRABS)

N=WH2333-(4.997 ppb)[4.8 ppb]

S=WH2329-(3.465 ppb)[3.34 ppb]

E=WH2330-(3.232 ppb)[3.19 ppb]

WATER'S EDGE

ROCKY BRANCH

TOP OF BANK

MANHOLE

POOL

RESIDENCE

DITCH

BUFFER AREA

STA. 2940

BUFFER AREA

140'±

ROW 1 (2) GRABS

N=WH2325-(2.654 ppb)[2.66 ppb]

S=WH2322-(3.682 ppb)[3.65 ppb]

W=WH2321-(1.775 ppb)[1.88 ppb]

ROW 2 (21 GRABS)

N=WH2327-(5.985 ppb)[5.76 ppb]

S=WH2328-(11.397 ppb)[12.32 ppb]

W=WH2326-(10.427 ppb)[10.92 ppb]

TELEPHONE POLE

HILL ROAD

56



FIGURE 26
1704 HILL ROAD
8-10 88

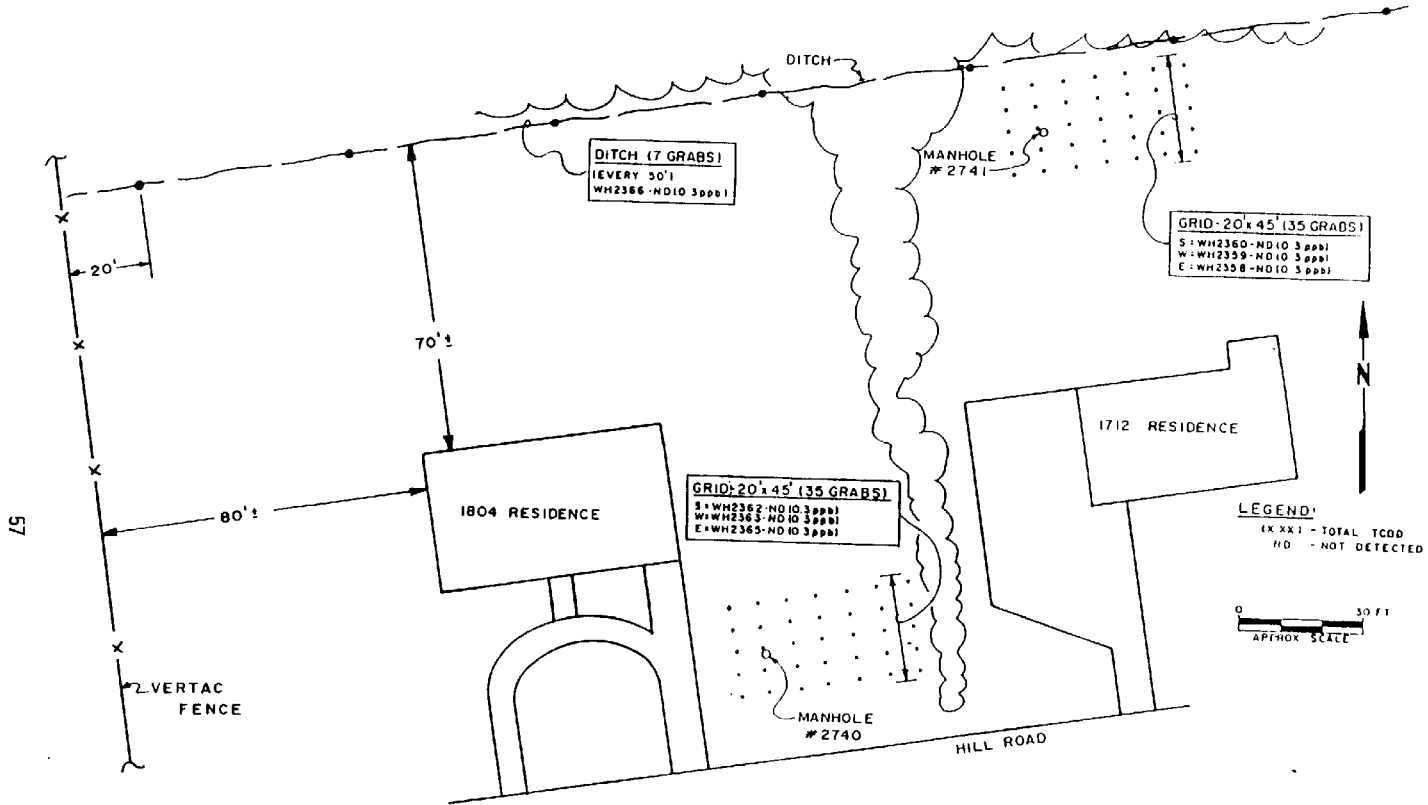



FIGURE 27
 MANHOLES # 2740, 2741
 & DITCH
 1804 & 1712 HILL RD
 INTERNATIONAL
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 CORPORATION

The results obtained from these sequential sampling efforts indicate that contamination on the 1704 Hill Road property and adjacent areas was confined to portions of the yard and the area of the ditch at the northern edge of the property and the low area on Vertac plant property. The concentrations of dioxin in the yard ranged from less than 0.300 ppb to 12 ppb; the western portion of the ditch contained 54 ppb.

The results of sampling of areas at 1712 and 1804 Hill Road indicated less than 0.300 ppb levels of dioxin.

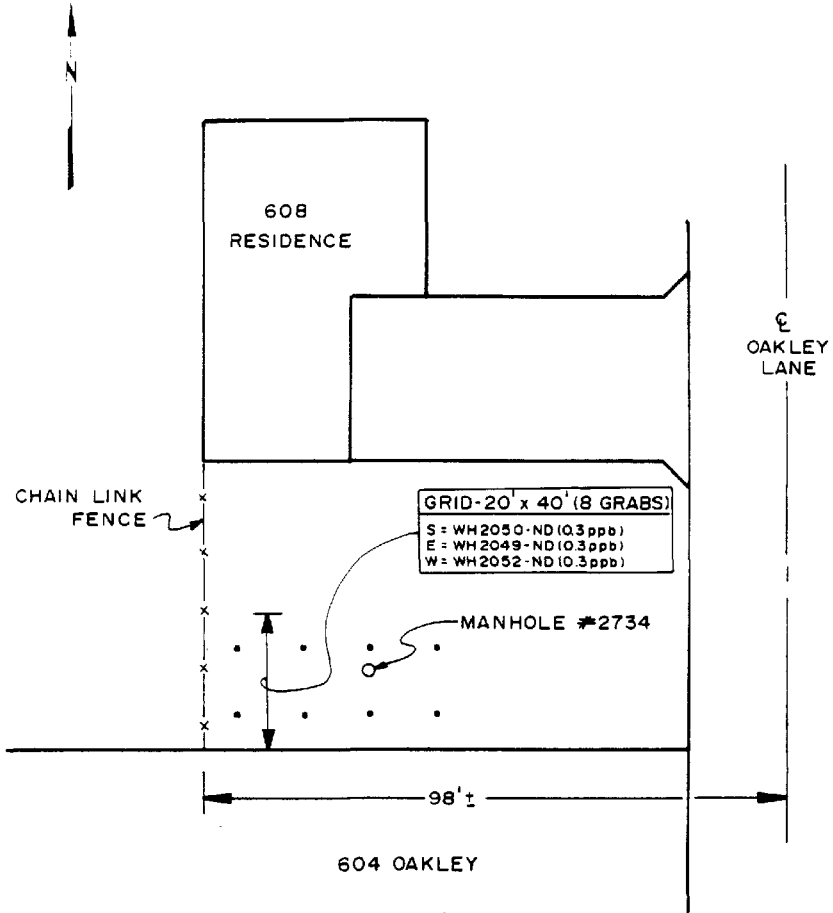
As required by the initial sampling plan, the manhole area surrounding manhole No. 2734 located in the side yard of 608 Oakley Lane (the address given in the plan, 612 Oakley, was shown to be incorrect by Jacksonville City Utility Maps) was sampled using a fine grid sampling strategy. In addition, manhole No. 2735 located in the backyard of 617 Oakley Lane was sampled using the fine grid strategy. This addition to the sampling plan was requested by the EPA RPM and agreed to by Hercules Incorporated. As shown in Table 9 and Figures 28 and 29, soil samples from the areas around the manholes contained less than 0.300 ppb TCDD.

TABLE 9

AREA C: GRIDS AT MANHOLE NUMBER 2734 and NUMBER 2735
SUMMARY OF RESULTS OF DIOXIN ANALYSES OF SOIL SAMPLES

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
WH2050	Manhole Number 2734, 608 Oakley, South	0.300 U	N/A
WH2049	Manhole Number 2734, 608 Oakley, East	0.300 U	N/A
WH2052	Manhole Number 2734, 608 Oakley, West	0.300 U	N/A
WH2237	Manhole Number 2735, 617 Oakley, North	0.300 U	N/A
WH2238	Manhole Number 2735, 617 Oakley, South	0.300 U	N/A
WH2236	Manhole Number 2735, 617 Oakley, West	0.300 U	N/A

U - Not detected at stated concentration
N/A - Not applicable



LEGEND:

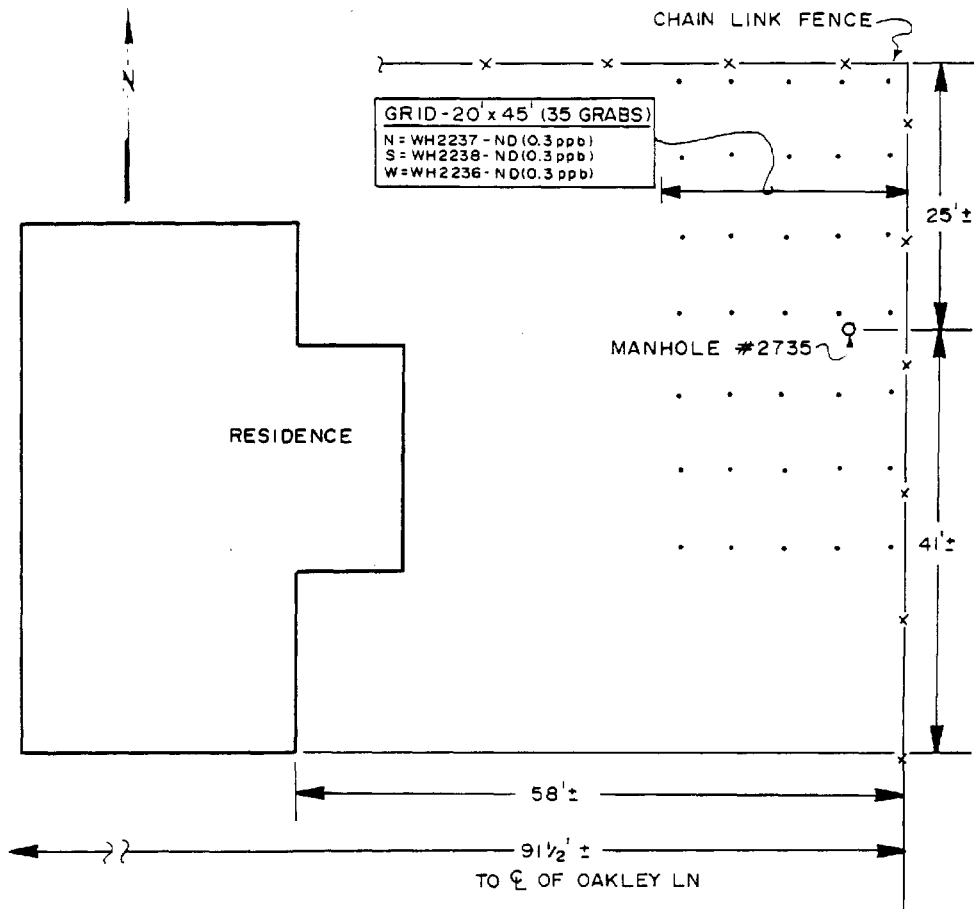
(X.XX) - TCDD
 ND - NOT DETECTED

FIGURE 28

MANHOLE #2734

608 OAKLEY LN
 7-13-88

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LEGEND:

(X.XX) - TCOD
 ND - NOT DETECTED



FIGURE 29

MANHOLE #2735

617 OAKLEY LN
 7-23-88

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5.2.3 Area D: Gross Grid, Random Grab Samples

The entire residential area between the east and west legs of Rocky Branch Creek was divided into two large grids - east and west. Three grab (not composite) soil samples were collected in each grid. The sample locations were selected by a representative of the property owners based on suspected contamination, and were approved by the EPA RPM. Table 10 and Figure 30 present the sample locations and analytical results.

The EPA RPM and Hercules Incorporated also approved the sampling of a garden at 2113 Braden after the IT-FAS field effort had been completed. Hercules Incorporated was responsible for collection of this sample on September 7, 1988, in the presence of the EPA RPM. The composite sample, WH2383, was composed of six aliquots collected with a stainless steel spoon. The aliquots were taken from the garden area in the backyard of the residence. The sample was composited according to the routine procedure and submitted for analysis. Table 10 and Figure 30 also present the result for this sample. All field information and data for Area D samples are located in Table A-2, Appendix A.

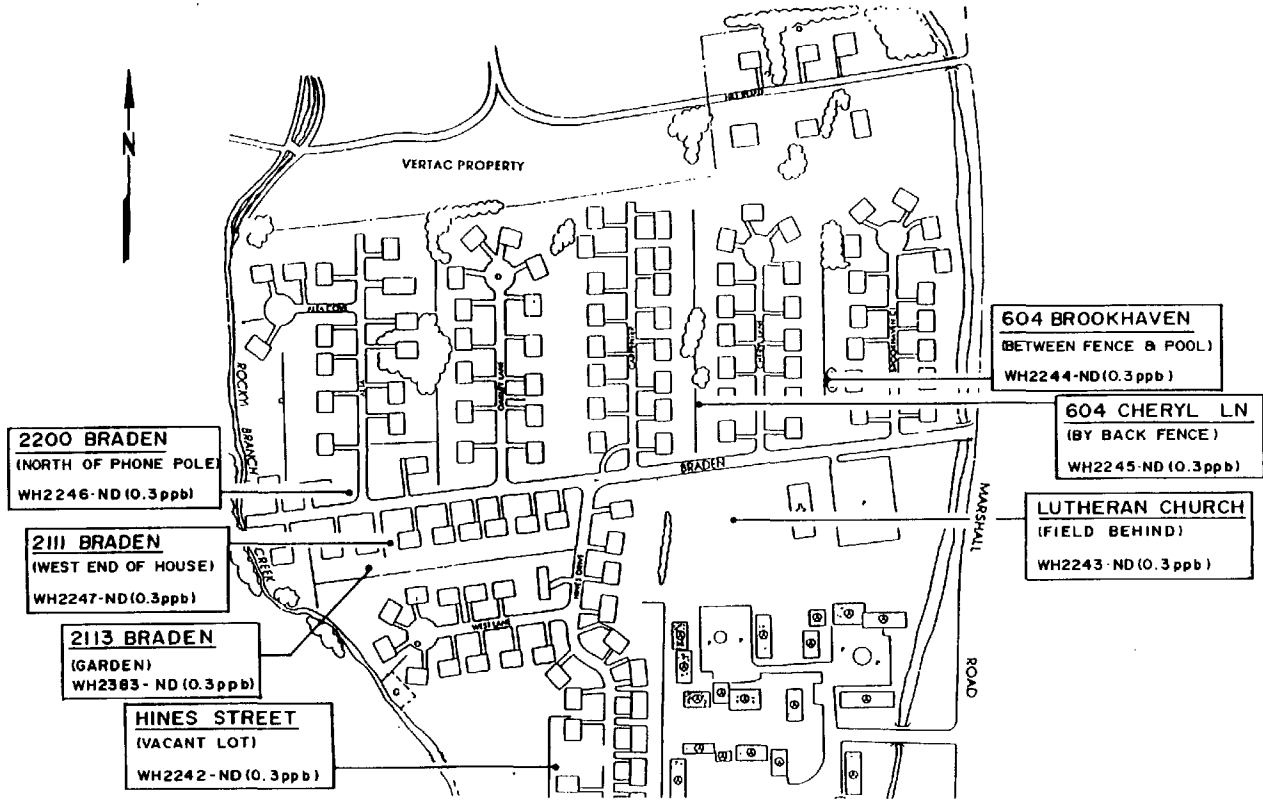
All samples from Area D contained less than 0.3 ppb TCDD.

TABLE 10

AREA D: "RESIDENTIAL" AREA GROSS GRID
SUMMARY OF RESULTS OF DIOXIN ANALYSES OF SOIL SAMPLES

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
WH2244	604 Brookhaven; between backyard fence and pool	0.300 U	N/A
WH2245	604 Cheryl; by fence across backyard	0.300 U	N/A
WH2246	2200 Braden; 4 ft. north of telephone pole on corner	0.300 U	N/A
WH2247	2111 Braden; on west side of house between plants and house	0.300 U	N/A
WH2242	Vacant lot on Hines Street between 3010 and 3018 Hines	0.300 U	N/A
WH2243	Field behind church on Braden Street	0.300 U	N/A
WH2383	2113 Braden; in garden	0.300 U	N/A

U - Not detected at stated concentration
N/A - Not applicable



LEGEND:

(X.XX) - TC DD
 ND - NOT DETECTED

FIGURE 30
AREA D
 GROSS GRID

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5.3 AREAS E1/E2, F, G1/G2 and G3: OLD SEWAGE TREATMENT PLANT (STP)

The original sampling plans separated locations within or adjacent to the Old Sewage Treatment Plant (STP; West Wastewater Treatment Plant) into four major sampling areas: (1) Area E1/E2, the sludge drying beds and clarifier area; (2) Area F, the Aeration Basin; (3) Area G1/G2, the Oxidation Ponds; and (4) Area G3, the walls and bottom of the outfall ditch (channel). With the approval of the EPA RPM, sampling was not done in the outfall ditch (channel). Instead, a section of the Bayou Meto at the outfall channel was sampled; the section of the Bayou Meto became sampling Area G3. For clarity, the analytical results for soil and sediment samples collected from all areas associated with the STP are presented in Table 11. A description of each area is presented in following sections of this report along with figures for each major area.

5.3.1 Areas E1/E2: Sludge Drying Beds and Clarifier Area

The area defined in the sampling plan as the "old sewage treatment plant" was divided into two major areas for sampling: E1, the sludge drying beds and E2, the clarifier area. The sludge drying bed area was sampled using two fine grids: one inside the sludge beds and one outside the sludge beds (i.e., the perimeter around the beds). One composite sample was collected from each grid unit as required by the sampling plan. The grid dimensions, the number of sample aliquots and their locations were determined on-site by the EPA RPM. The clarifier area was considered one grid unit. One composite sample composed of a total of 39 aliquots was collected for analysis. The EPA RPM selected the sample aliquot locations at the time of sampling.

Sample aliquot locations and analytical results for these two areas are shown in Figure 31. (Complete descriptions of the samples are presented in Table A-2, Appendix A). Duplicate samples from the sludge drying beds contained 2.4 and 2.8 ppb 2,3,7,8-TCDD; a composite soil sample from the perimeter of the beds contained 1 ppb 2,3,7,8-TCDD. Soil from the clarifier area contained less than 0.5 ppb.

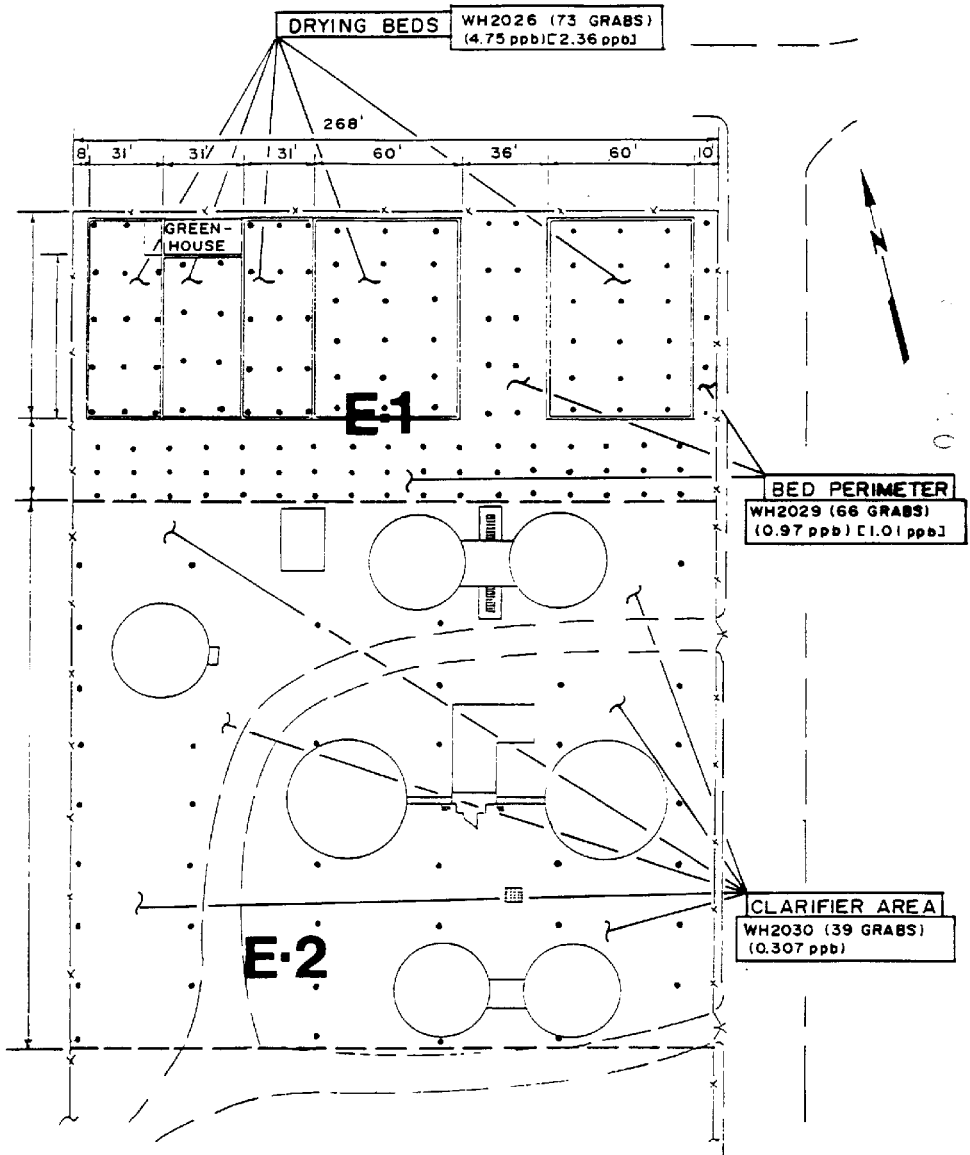
TABLE 11

 AREAS E, F, and G: OLD SEWAGE TREATMENT PLANT (STP)
 SUMMARY OF RESULTS OF DIOXIN ANALYSES OF SOIL AND SEDIMENT SAMPLES

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
<u>Area E: Sludge Drying Beds/Clarifier Area*</u>			
WH2026	Area E1: Sludge Drying Beds, Soil (ORIG)	4.750	2.36
WH2027	Area E1: Sludge Drying Beds, Soil (QDU of WH2026)	2.843	2.79
WH2029	Area E1: Perimeter of Sludge Drying Beds, Soil	0.970	1.01
WH2030	Area E2: Clarifier Area, Soil	0.307	N/A
<u>Area F: Aeration Basin**</u>			
WH2135	Perimeter of Aeration Basin, Soil	0.300 U	N/A
WH2220	North Quad, Top Sludge	0.300 U	N/A
WH2227	North Quad, Interface with Bottom	0.300 U	N/A
WH2221	Northeast Quad, Top Sludge	2.705	1.41@
WH2228	Northeast Quad, Interface with Bottom	0.300 U	N/A
WH2224	Southwest Quad, Top Sludge	0.710	N/A
WH2232	Southwest Quadrant, Interface with Bottom	0.300 U	N/A
WH2222	South Quad, Top Sludge (ORIG)	2.840	2.83
WH2226	South Quad, Top Sludge (QDU of WH2222)	2.336	1.07
WH2229	South Quad, Interface with Bottom (ORIG)	0.300 U	N/A
WH2230	South Quad, Interface with Bottom (QDU of WH2229)	0.300 U	N/A
<u>Area G: Oxidation Ponds (Lagoons)***</u>			
WH2134	Perimeter of Oxidation Ponds, Soil	0.300 U	N/A
<u>Area G1: North Oxidation Pond</u>			
WH2206	West Half, Top Sludge	1.890	0.29
WH2207	West Half, Interface with Bottom	0.300 U	N/A
WH2208	East Half, Top Sludge	1.702	0.97
WH2209	East Half, Interface with Bottom (ORIG)	0.300 U	N/A
WH2210	East Half, Interface with Bottom (QDU of WH2209)	0.300 U	N/A
<u>Area G2: South Oxidation Pond</u>			
WH2213	West Half, Top Sludge	0.300 U	N/A
WH2212	West Half, Interface with Bottom	0.300 U	N/A
WH2215	East Half, Top Sludge	0.300 U	N/A
WH2214	East Half, Interface with Bottom	0.300 U	N/A
<u>Area G3: Bayou Meto at Outfall of South Oxidation Pond</u>			
WH2340	Delta at Outfall, Sediment (ORIG)	0.300 U	N/A
WH2341	Delta at Outfall, Sediment (QDU of WH2340)	0.300 U	N/A
WH2345	Bayou Meto, right bank, 6 inches#, Soil (ORIG)	0.300 U	N/A
WH2347	Bayou Meto, right bank, 6 inches#, Soil (QDU of WH2345)	0.300 U	N/A
WH2344	Bayou Meto, right bank, 36 inches#, Soil	0.300 U	N/A
WH2343	Bayou Meto, right bank, 60 inches#, Soil	0.300 U	N/A
WH2352	Bayou Meto, left bank, 6 inches#, Soil	0.300 U	N/A
WH2349	Bayou Meto, left bank, 36 inches#, Soil (ORIG)	0.300 U	N/A
WH2351	Bayou Meto, left bank, 36 inches#, Soil (QDU of WH2349)	0.300 U	N/A
WH2348	Bayou Meto, left bank, 60 inches#, Soil	0.300 U	N/A

* - See Figure 31
 ** - See Figure 32
 *** - See Figure 33

@ - Non-2,3,7,8 isomers present
 # - Distance from edge of water
 U - Not detected at stated concentration
 N/A - Not applicable
 ORIG - Original sample of quality control pair
 QDU - Duplicate sample of quality control pair



LEGEND:

(X.XX) - TCDD
[X.XX] - 2,3,7,8-TCDD

0 40 FT
APPROX. SCALE

FIGURE 31
AREAS E-1 & E-2
OLD SEWAGE TREATMENT PLANT
SLUDGE DRYING BEDS
& CLARIFIER AREA
INTERNATIONAL TECHNOLOGY CORPORATION

5.3.2 Area F: Aeration Basin

One soil composite sample was collected around the perimeter of the aeration basin. The aliquots (grabs) for the composite were collected every 20 feet on the dike surrounding the basin, five feet from the edge of the water (see Figure 32).

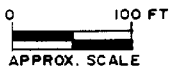
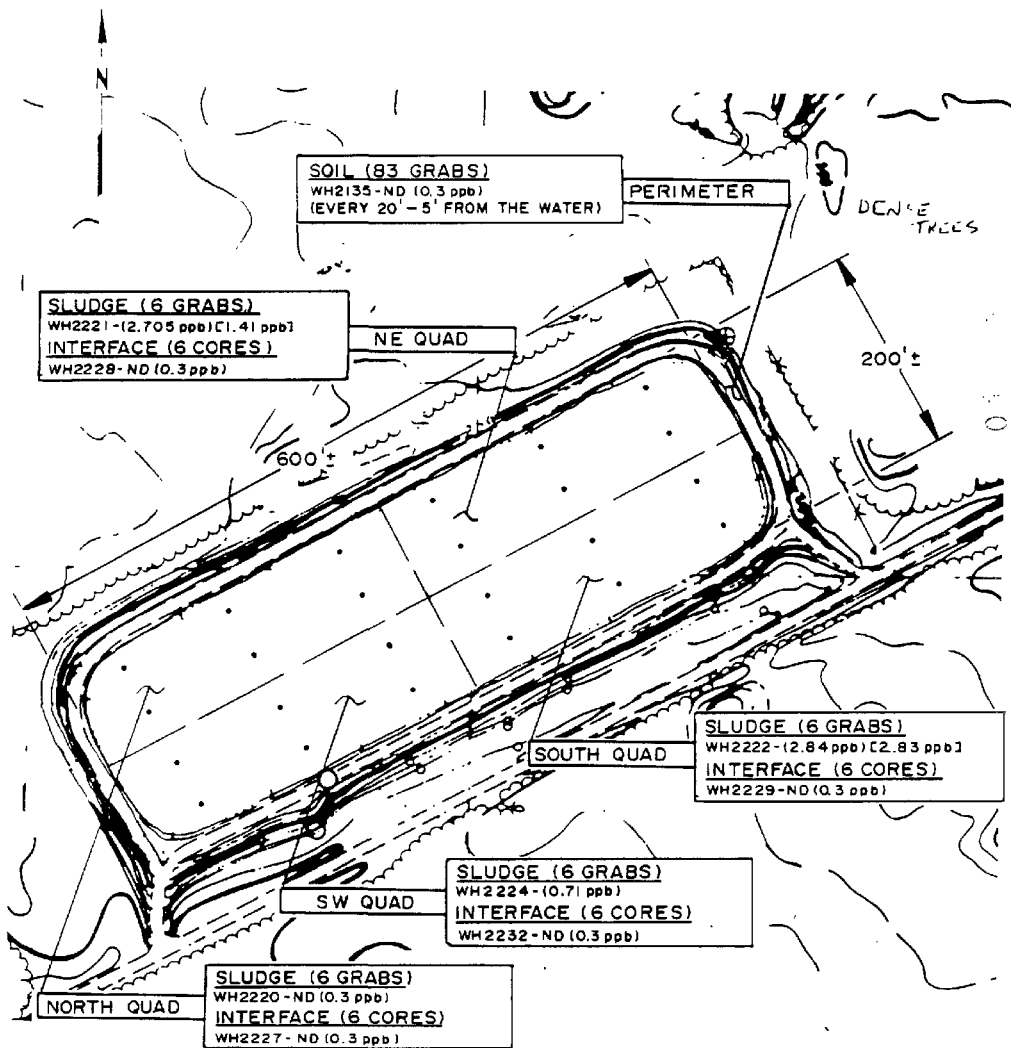
The sediment samples from within the basin were collected in a manner deviating slightly from the sampling plan. The deviation was documented and approved by the EPA RPM in a correspondence from the RPM to Hercules Incorporated. The deviation was that the basin was divided into four equal quadrants instead of three sections. Two composite samples were collected in each quadrant, one from the top sediment (or sludge) and one from the interface between the bottom sediment and clay bottom of the basin. Each composite sample was composed of six aliquots. The procedures used to collect the aliquots are described in Sections 3.2.1 and 3.2.2. The aliquot collection locations were determined by the EPA RPM and are presented along with the analytical results in Figure 32 and Table 11 (also see Table A-2, Appendix A).

All samples taken from the aeration basin contained less than 0.300 ppb TCDD except the top sludge samples of the northeast, southwest and south quadrants. The maximum concentration of 2,3,7,8-TCDD found was 2.8 ppb.

5.3.3 Areas G1/G2: Oxidation Ponds

The north oxidation pond was identified as area G1, the south oxidation pond as area G2. One soil composite sample was collected around the perimeter of both ponds not including the dike separating the two. An aliquot was collected every 100 feet at a location five feet from the water's edge. This was a slight deviation from the plan and was approved by the EPA RPM and documented in the field logbook.

For sediment sampling, each pond was divided into two equal grids - east and west. Two composite samples, consisting of four aliquots each, were collected in each grid: the top sediment or sludge and the bottom sediment/clay interface. Sample collection procedures are described in Sections 3.2.1 and 3.2.2. The aliquot collection locations were determined on site by the EPA RPM. See Figure 33 and Table 11 for sample locations and analytical results (also see



LEGEND:
(X.XX) - TCDD
[X.XX] - 2,3,7,8-TCDD
ND - NOT DETECTED

FIGURE 32
AREA F
AERATION BASIN
(OF STP)

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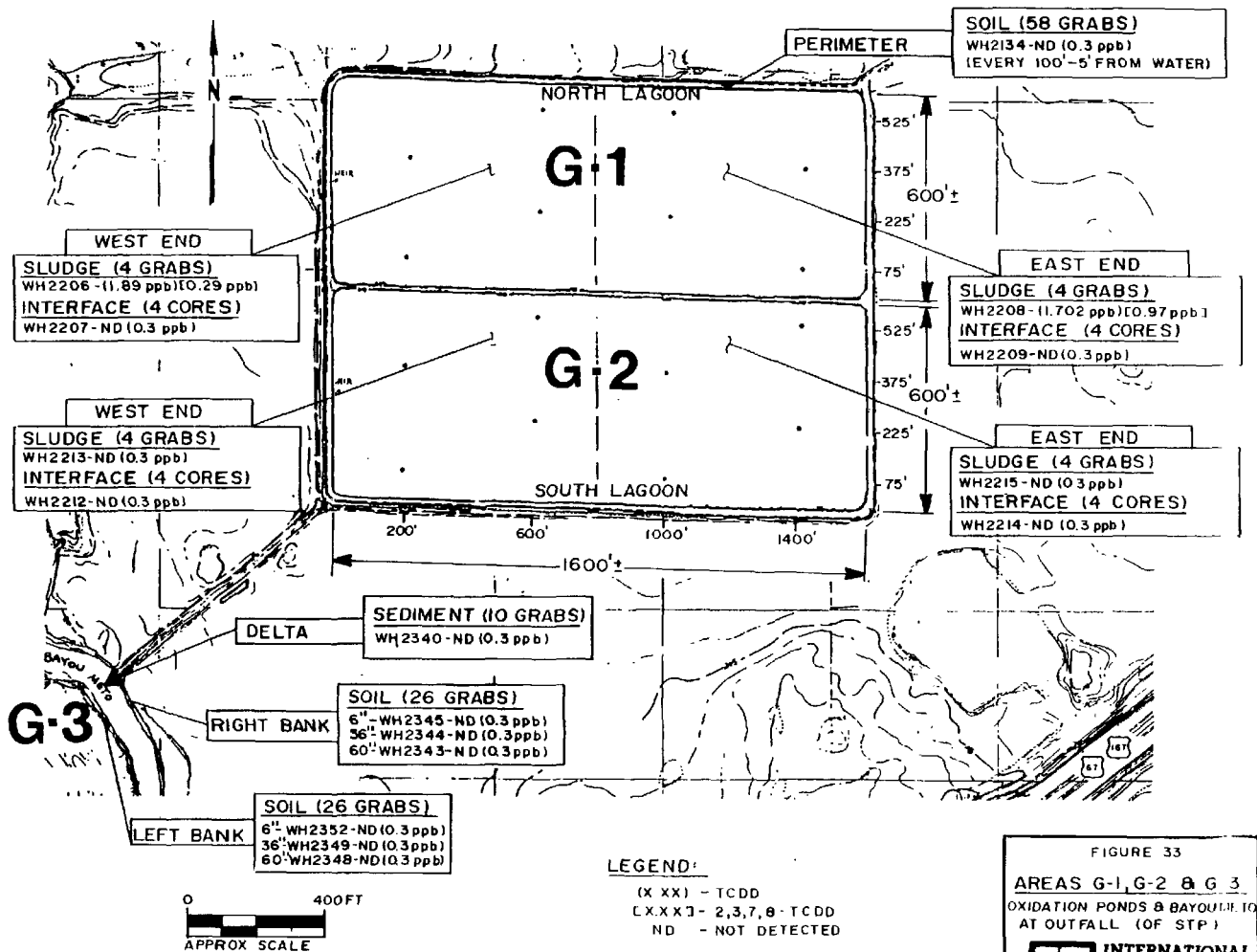


Table A-2, Appendix A). All samples from the oxidation ponds contained less than 1 ppb 2,3,7,8-TCDD.

5.3.4 Area G3: Bayou Meto at the STP Outfall

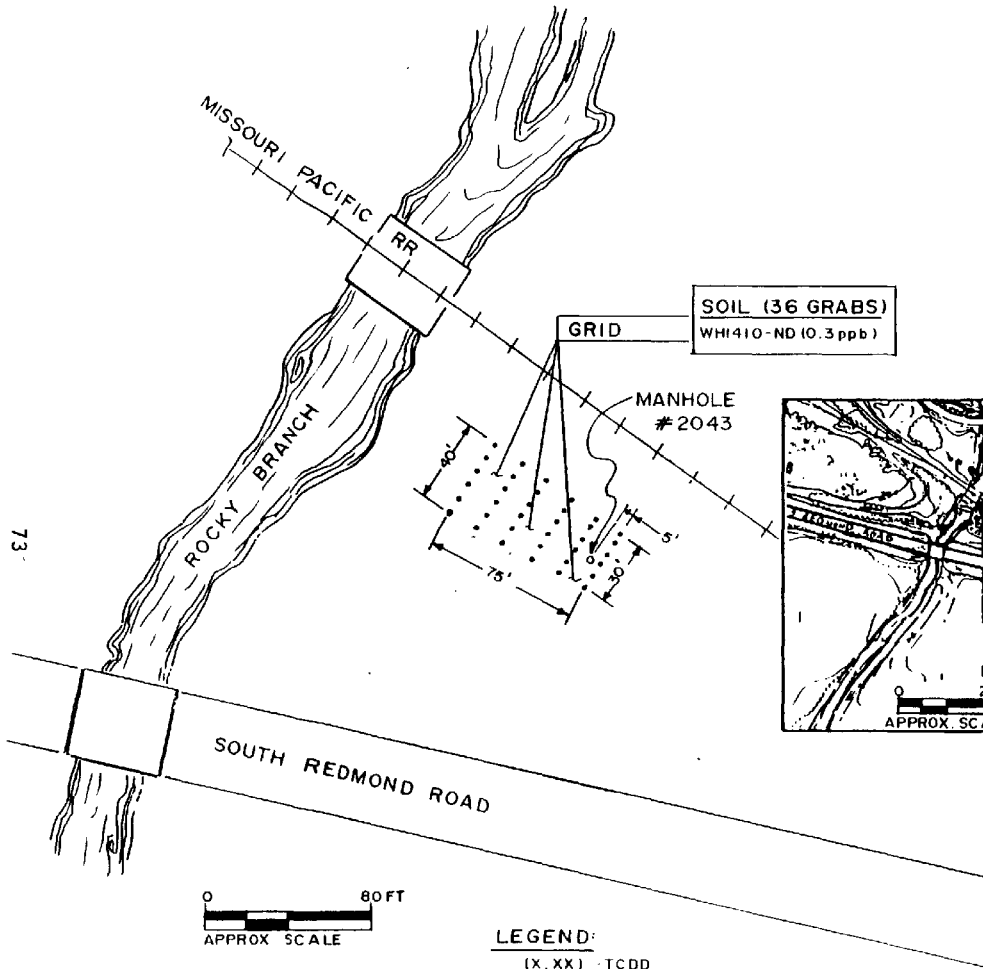
As mentioned above, deviation from the sampling plan concerning the STP outfall area was approved by the EPA RPM due to conditions on-site. Instead of sampling the outfall channel bank and bottom, the delta created in the Bayou Meto by the outfall effluent was sampled, and the right and left banks of the Bayou Meto at its confluence with the outfall channel were sampled.

Ten points in the delta area were selected at random and equal aliquots of sediment were collected using stainless steel spoons. The sampling area was wet, but not under water. The ten aliquots were composited for analysis.

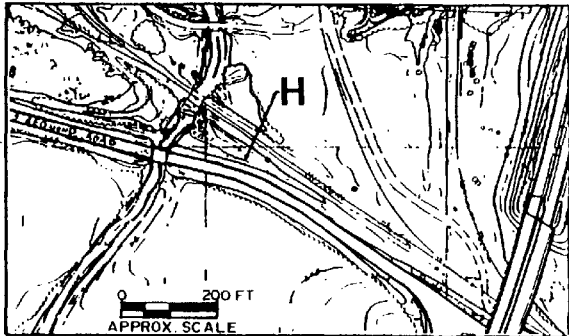
Starting at the upstream edge of the delta (the same as the downstream corner of the confluence with the outfall) and extending 250 feet downstream, the right and left banks of the Bayou Meto were sampled. Three composite soil samples were collected on each bank: 6 inches, 36 inches and 60 inches distance from the edge of the water. The sample aliquots were ten feet apart for a total of 26 aliquots for each composite sample. The sample results are presented in Table 11 and Figure 33 (see also Table A-2, Appendix A). All samples collected from Area G3 contained less than 0.300 ppb TCDD.

5.4 AREA H: MANHOLE NO. 2043

The low area containing manhole number 2043 located between South Redmond Road and the Missouri Pacific Railroad line just west of Rocky Branch was sampled using a modification of the fine grid procedure (see Figure 34). The 75-foot long grid contained six lines of sample aliquots collected every 15 feet for a total of 36 aliquots composited for one soil sample. The grid pattern was determined based on the contours of the land and was approved by the EPA RPM. Table 12 and Figure 34 present the analytical result showing less than 0.300 ppb dioxin.



SOIL (36 GRABS)
WHI410-ND (0.3 ppb)



LEGEND:
(X.XX) - TCDD
ND - NOT DETECTED

FIGURE 34
AREA H
MANHOLE # 2043
BY SOUTH REDMOND ROAD

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CORPORATION

TABLE 12

AREA H: AREA AT MANHOLE NUMBER 2043
SUMMARY RESULT OF DIOXIN ANALYSIS OF SOIL SAMPLE

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
WH1410	Manhole Number 2043 near South Redmond Road	0.300 U	N/A

U - Not detected at stated concentration
N/A - Not applicable

5.5 AREA I: LAKE DUPREE

Soil sample aliquots were collected every 75 feet around the perimeter of the lake, two feet from the water's edge, for a total of 38 aliquots composited for analysis. For sediment sample collection, the lake was divided into four equal quadrants. One sediment composite sample containing six aliquots, was collected from each section. As required by the plan, only the top sediment was sampled; procedures used are described in Section 3.2.1. The aliquot locations were selected by the EPA RPM prior to sampling. See Table 13 and Figure 35 for sample locations and analytical results. All samples collected from Lake Dupree contained less than 0.300 ppb dioxin.

TABLE 13

AREA I: LAKE DUPREE
SUMMARY OF RESULTS OF DIOXIN ANALYSES OF SOIL AND SEDIMENT SAMPLES

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
WH1452	Perimeter, Soil	0.300 U	N/A
WH2130	Quadrant #1, Sediment	0.300 U	N/A
WH2131	Quadrant #2, Sediment	0.300 U	N/A
WH2132	Quadrant #3, Sediment	0.300 U	N/A
WH2133	Quadrant #4, Sediment	0.300 U	N/A

U - Not detected at stated concentration

N/A - Not applicable

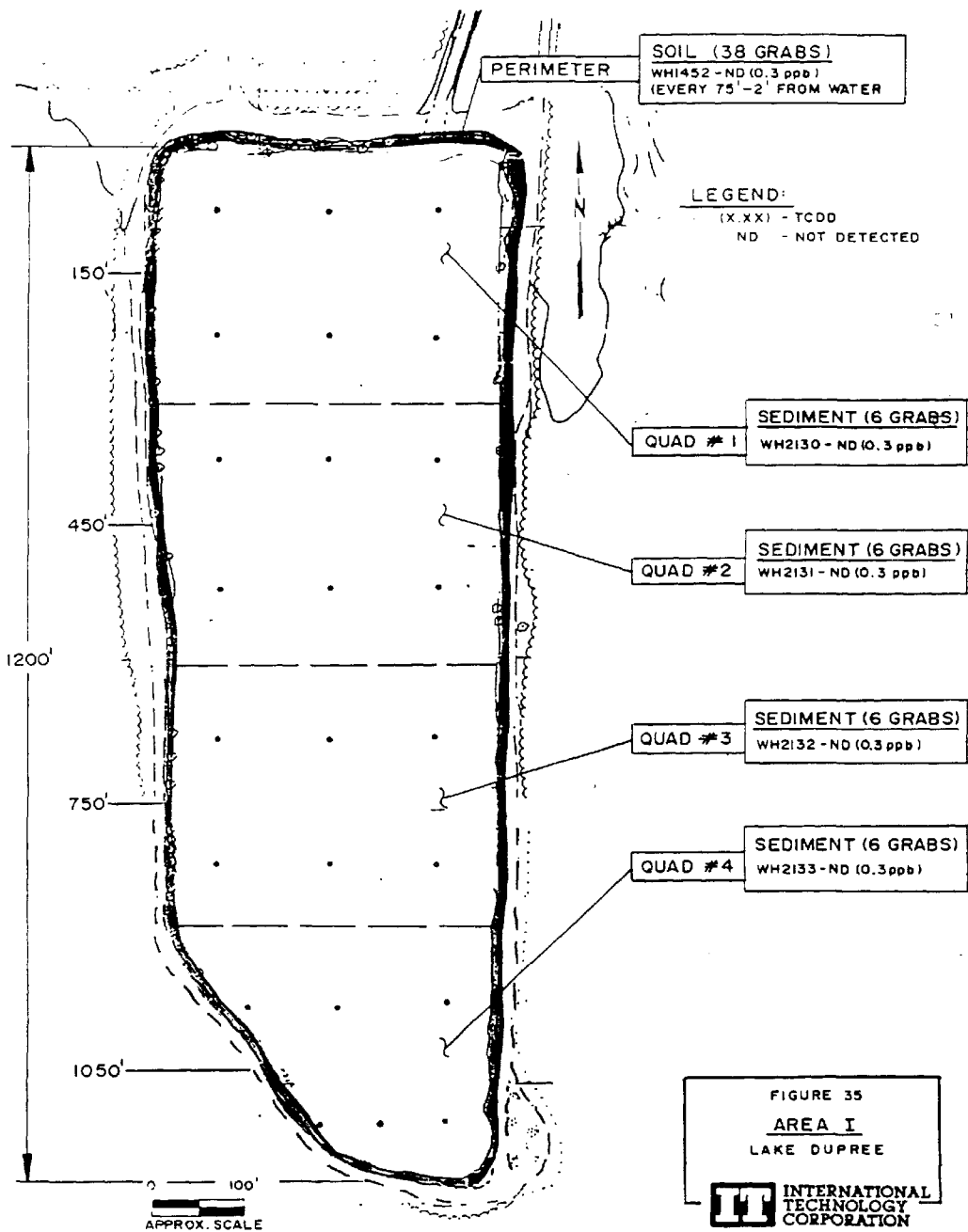


FIGURE 35
 AREA I
 LAKE DUPREE

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5.6 AREAS J, K, AND L: BAYOU METO BANKS

Only soil samples were collected along the banks of Bayou Meto. One 500-foot section was marked for composite samples on both the right and left banks (right and left determined facing upstream) at the locations marked J, K and L on the map in Figure 36. At K and L, the center of the bridges were considered the center of the 500-foot section. At Location J, a permanent marker fixed to a tree at the confluence of Bayou Meto and a tributary (see figure) was used as the center of the 500-foot section. Soil aliquots were collected every ten feet along the bank of each section for a total of 50 aliquots per composite sample. Aliquots were collected under the bridges at K and L and included in the composite. As a deviation from the plan, due to the contours of the banks, soil samples were collected at 6", 36", and 60" linear distance from the water's edge rather than 6", 12" and 36" elevation above the water level. This deviation was documented and approved by the EPA RPM in correspondence to Hercules Incorporated. As a permanent reference, the current water level was determined by measuring the distance from the railroad bridge at Location K down to the surface of the water. This measurement was documented in the field logbook.

The 6" composite samples were analyzed first; the composites for the 36" and 60" distances were archived. If the results for the 6-inch composite samples had been equal to or greater than 1 ppb TCDD, then the sample from the next distance would have been analyzed. However, in this case all the 6-inch composite samples contained less than 0.300 ppb TCDD; therefore, the other samples remained in archive (storage) status. On the left bank of Bayou Meto at Location J, the sampling team encountered obstacles from recent logging that severely hindered sampling at 36" and 60" from the water's edge. With the approval of the EPA RPM samples at these distances were not collected, and based on the results they were not needed. Table 14 and Figure 36 present the analytical results for this area.

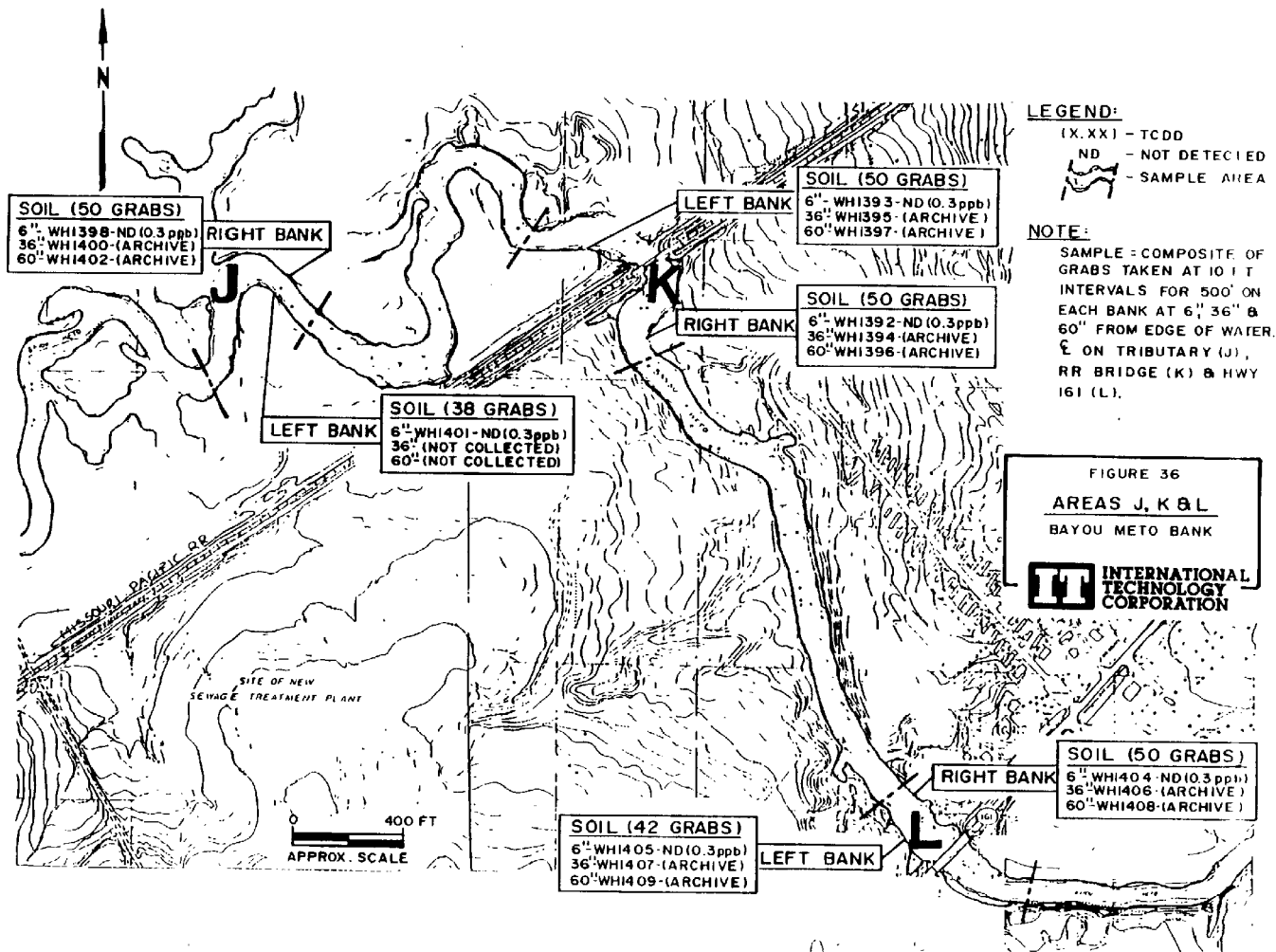


TABLE 14
 AREAS J, K, and L: BANKS OF BAYOU METO
 SUMMARY OF RESULTS OF DIOXIN ANALYSES OF SOIL SAMPLES

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
<u>AREA J</u>			
WH1401	Left Bank facing upstream, 6 inches from edge of water	0.300 U	N/A
WH1398	Right Bank facing upstream, 6 inches from edge of water	0.300 U	N/A
<u>AREA K: BAYOU METO AT MPRR bridge</u>			
WH1393	Left Bank facing upstream, 6 inches from edge of water	0.300 U	N/A
WH1392	Right Bank facing upstream, 6 inches from edge of water	0.300 U	N/A
<u>AREA L: BAYOU METO AT HIGHWAY 161 BRIDGE</u>			
WH1405	Left Bank facing upstream, 6 inches from edge of water	0.300 U	N/A
WH1404	Right Bank facing upstream, 6 inches from edge of water	0.300 U	N/A

U - Not detected at stated concentration
 N/A - Not applicable

5.7 AREAS M AND N: DRY CREEK BEDS

Based on conditions found at the location designated as "M" in the sampling plan, the actual sampling strategy deviated from that described in the plan. The deviations were documented and approved by the EPA RPM. The dry drainage ditch (or creek bed) at Area M was sampled using a linear grid strategy. One soil aliquot was collected every ten feet at the mid-point of the creek bed for a distance of 500 feet for one composite sample of 50 portions.

A second dry ditch that drained into Rocky Branch Creek just south of the location of the old STP pipeline (which was never located) was designated Area N. One composite soil sample was collected from this ditch. Aliquots were collected from the middle of the bottom of the ditch at 10-foot intervals starting from Rocky Branch Creek and extending approximately 250 feet for a total of 25 sample portions. Table 15 presents the analytical results. Figure 37 also shows the location of the two dry "creek beds" and the analytical results of the two composite samples collected. The soil samples from the two dry creek beds contained less than 1 ppb TCDD.

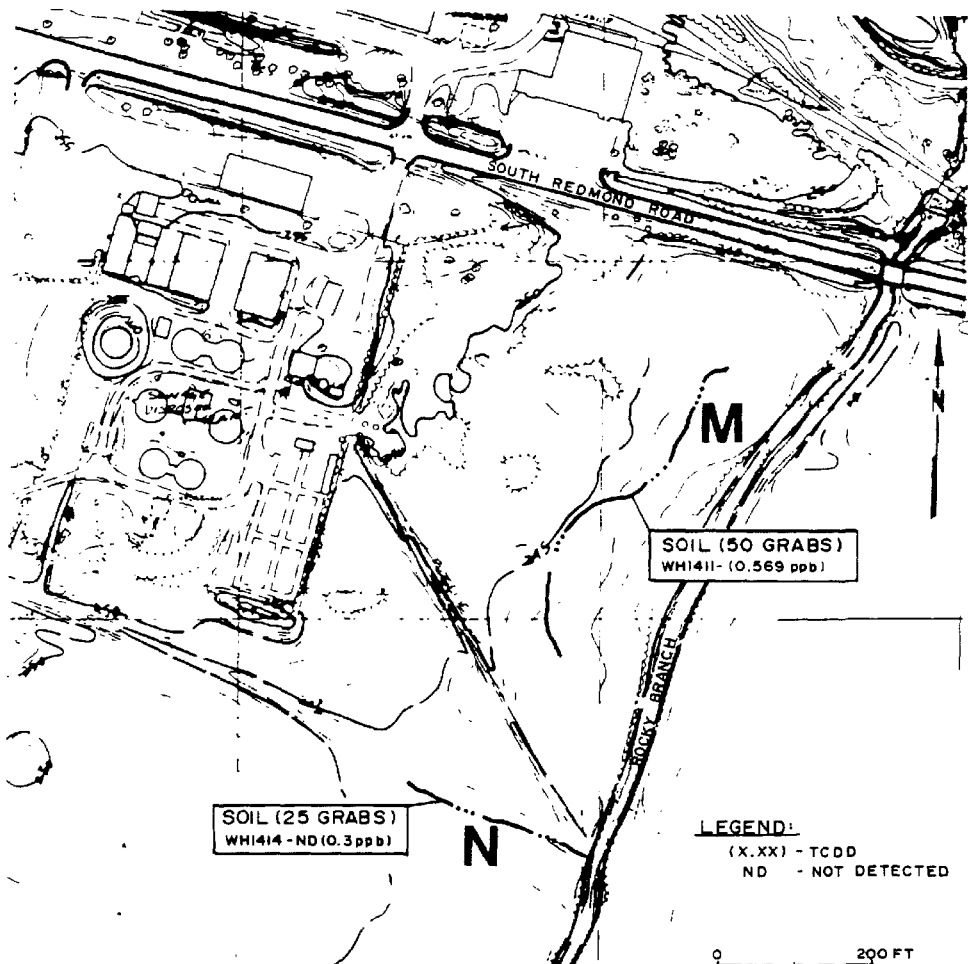
TABLE 15

AREAS M and N: DRY CREEK BEDS
SUMMARY OF RESULTS OF DIOXIN ANALYSES OF SOIL SAMPLES

Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
<u>Area M:</u>			
WH1411	Dry Creek Bed M (ORIG)	0.569	N/A
WH1412	Dry Creek Bed M (QDU of WH1411)	0.489	N/A
<u>Area N:</u>			
WH1414	Dry Creek Bed N	0.300 U	N/A

U - Not detected at stated concentration

N/A - Not applicable



SOIL (25 GRABS)
WHI414 - ND (0.3 ppb)

SOIL (50 GRABS)
WHI411 - (0.569 ppb)

LEGEND:
(X.XX) - TCDD
ND - NOT DETECTED

0 200 FT
APPROX. SCALE

FIGURE 37
AREAS M & N
DRY CREEK BEDS

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5.8 AREA 0: MOUND AT WEST MAIN STREET AND ROCKY BRANCH CREEK

At the request of the EPA RPM and approval of Hercules Incorporated, Area 0 was added to the sampling plan. The mound of soil located on the east bank of Rocky Branch just north of the West Main Street bridge was sampled using a modified fine grid strategy. One soil composite sample composed of 36 aliquots was collected for analysis. Table 16 presents the sample location description and analytical results. Figure 38 shows the grid pattern used (each point represents one aliquot collected) and the analytical results. The composite soil sample from this location contained less than 0.300 ppb TCDD.

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TABLE 16

AREA 0: MOUND AT ROCKY BRANCH CREEK AND WEST MAIN STREET BRIDGE
SUMMARY RESULT OF DIOXIN ANALYSIS OF SOIL SAMPLE

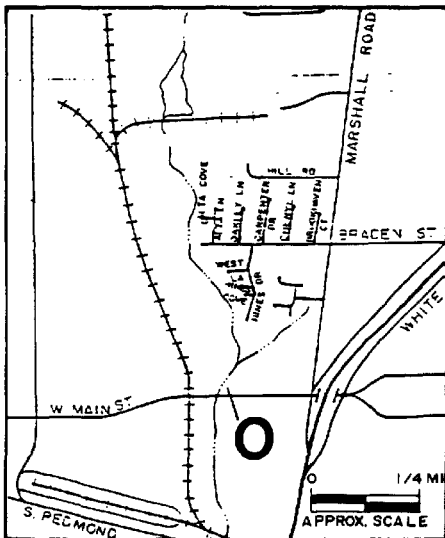
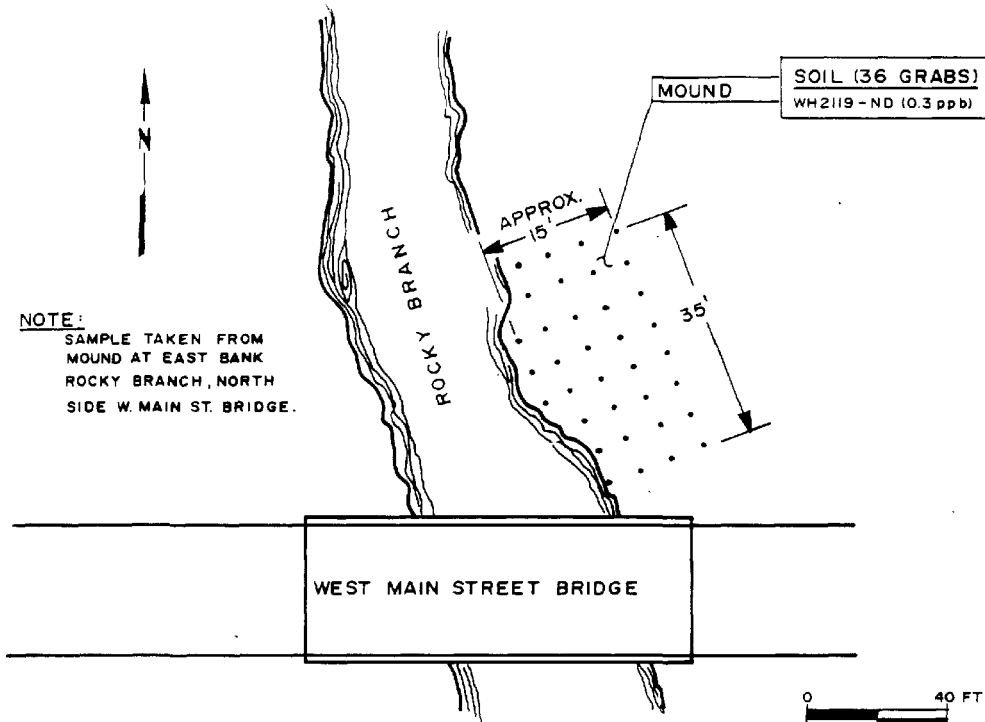
Sample Number	Location	TCDD (ppb)	2,3,7,8-TCDD (ppb)
WH2119	East bank of Rocky Branch at West Main Street Bridge	0.300 U	N/A

U - Not detected at stated concentration

N/A - Not applicable


NOTE:

SAMPLE TAKEN FROM
MOUND AT EAST BANK
ROCKY BRANCH, NORTH
SIDE W. MAIN ST. BRIDGE.



LEGEND:

(X.XX) - TCDD
ND - NOT DETECTED

FIGURE 38
AREA O
MOUND AT ROCKY BRANCH
& W. MAIN STREET
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CORPORATION

018834 001

6.0

6.0 FIELD DECONTAMINATION OF SAMPLING EQUIPMENT

All of the equipment used for sampling was decontaminated prior to initial use and between samples to prevent cross-contamination. The procedure involved rinsing gross soil or sediment from the sampling tool with tap water, then washing the tool with laboratory grade detergent ("Liquinox"), followed by rinses with fresh potable water, distilled water, acetone, hexane and a final distilled water rinse. Clean sampling tools were wrapped in aluminum foil during transport from one sample location to another.

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7.0

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7.0 SAMPLE HANDLING AND DOCUMENTATION

Collection of all field samples involved common sample documentation, handling and custody practices. These practices are necessary to ensure the integrity of the sample from collection to data reporting. The field sample custody procedures used for this program conform to the guidelines established in EPA's Test Methods for Evaluating Solid Wastes (SW-846).

7.1 FIELD DOCUMENTATION AND PHOTOGRAPHS

All pertinent field survey and sampling information was recorded in a logbook during each day of the field effort. The logbooks used were dedicated to this field effort. The Field Sampling Coordinator was responsible for ensuring that sufficient detail was recorded such that field activities could be reconstructed without relying on the memory of the field crew. An entry in a logbook included:

- 1) Date and time that work was begun.
- 2) Names of field task leader and team members.
- 3) Description of work area.
- 4) Location of work area, including map reference letter.
- 5) Details of work effort, including sampling procedures used, sample types, numbers, and locations for samples collected.
- 6) Field observations.
- 7) Equipment decontamination procedures.
- 8) Weather conditions.

Strict custody procedures were maintained with the field logbooks. While being used in the field, logbooks were kept with the field team at all times. After completion of the field effort the logbooks were submitted to the IT-FAS project files in Knoxville, Tennessee.

In addition, an individual field collection log form was completed as each sample was collected (see Attachment 5, Figure 1 for an example). This form contained, at a minimum, the following information:

- 1) Sample Number
- 2) Sample location description
- 3) Sample matrix type
- 4) Sample date and time
- 5) Depth sampled

- 6) Composite information
- 7) Pertinent observations/descriptions
- 8) Type of analysis requested and status (analyze/archive)
- 9) Initials of sampling personnel

Upon completion of the field effort the information on the individual field collection logs was entered into a computer database for data management and reporting. The original collection sheets have been placed in individual protective covers and are maintained in the IT-FAS project files.

For each sample collected one or more photographs was taken with a 35mm databack camera. The photographs showed the sample location including the best available reference points.

7.2 SAMPLE PACKAGING AND LABELING

Upon collection all samples were transferred into glass sample jars or bottles and capped with teflon-lined lids. With EPA approval, I-Chem Series 200 (or better) sample containers were used. Each sample container was labeled with a unique sample number (using serialized number tape on the lid and handwritten on the I-Chem label in indelible ink), the date collected, the analysis requested, the analytical method to be used, the preservative (if any) and the site location. An exception to this practice was taken for samples requiring multiple analyses (i.e., priority pollutant compounds); the same number was placed, using an indelible ink marker, on the separate containers for each of these samples. To prevent tampering with the sealed and labeled samples, custody tape was placed over the bottle cap, covering the sample number on the lid and the label on the bottle. For shipment to the laboratory, each sample container was placed in a heavy duty zip-lock bag, then into a sample can surrounded by an absorbent material. Each sample can was closed and a custody tape seal attached across the top. The sample cans were placed in coolers for overnight delivery to the designated laboratory. Additional absorbent or packing material was used to fill the voids in the cooler.

7.3 CHAIN-OF-CUSTODY

A required part of any sampling and analytical program is to protect the integrity of, and keep track of, samples from collection to data reporting. This includes the ability to trace the possession and handling of samples from the

time of collection, through analysis and final disposition. This documentation is referred to as "chain-of-custody".

Numerous sample identification documents were used to maintain identification and chain-of-custody of all samples collected and to control sample disposition. These include: sample number tape, sample labels, custody seals, chain-of-custody records, request for analysis forms and other laboratory specific forms. All labels were filled out with waterproof ink.

ITAS supplied the pre-numbered (in duplicate) tape used for sample identification, (with EPA approval). One label tape number was attached to each sample collected, and the second copy of the same number was affixed to the individual collection log sheet. Unused label numbers were returned to the Field Sampling Coordinator. For a sample requiring multiple analyses, the label tape number was attached to the sample container collected for TCDD analysis and the same sample number was handwritten in indelible ink on the sample labels of all other containers for that sample.

Sample cans containing samples for shipment to TMS Analytical Services, Inc. were placed in coolers sealed with custody seals. Two seals were placed on each cooler, one at the front and one at the back. Clear tape was placed over the seals to ensure that they were not accidentally broken during shipment. All samples were shipped under requirements listed in 49 CFR 172.101. Any additional requirements (i.e., labels) by the delivery service were determined prior to the commencement of sampling.

Those samples designated for archive status were maintained on-site throughout the duration of the field effort. Custody tape was placed over the sample container as described above and the container placed in a ziplock bag and kept with other archived samples in a locked trunk. The trunk was stored in a secured private warehouse. The keys to the trunk were in the custody of the IT-FAS Project Manager and the Field Sampling Coordinator only. Upon completion of the field effort all archived samples, under the custody of the IT-FAS Project Manager and Field Sampling Coordinator, were transferred to secured storage in Knoxville, Tennessee.

All samples being shipped to the laboratory for analysis were accompanied by a Chain-of-Custody Record (see Attachment 5, Figure 2). When transferring

samples, the individuals relinquishing and receiving would sign, date, and note the time on the record. This record was used to document sample custody transfer from the sampler to another field team member, to the shipper, then to the designated laboratory.

The samples were also accompanied by a Request-for-Analysis Record (see Attachment 5, Figure 3). This record listed the required analytical test(s) to be performed on each sample, as well as other sample information pertinent to analysis (such as sample volume, type, preservative used, possible hazards, turn around time requested, and disposal instructions).

The originals of the Chain-of-Custody and Request-for-Analysis records identifying the contents of the sample shipment were sealed in a zip-lock bag and placed in the lid of the corresponding sample cooler for delivery to the designated laboratory. The yellow copy of each record was maintained by the Field Sampling Coordinator on site until the end of the field effort, at which time these copies were transferred to the IT-FAS project files.

For those samples requiring multiple analyses, two Chain-of-Custody and Request for Analysis records were initiated. The originals were shipped in separate shipments along with the corresponding sample containers to the appropriate laboratory for analysis.

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8.0

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8.0 ANALYTICAL PROGRAM*

After proper documentation and packaging procedures were completed, samples for dioxin analysis were shipped via an overnight carrier (e.g., Federal Express) to TMS Analytical Services, Inc., Indianapolis, Indiana. The following day, the on-site IT-FAS Project Manager verified by telephone that the samples had been received in good condition.

All the samples submitted were analyzed for TCDD on a 48-hour turnaround basis. Analysis for TCDD was performed using semi-isomer specific high resolution gas chromatography/tandem mass spectrometry (GC/MS/MS) as described in "Rapid Determination of TCDD in Soil and Sediment Using Gas Chromatography and Tandem Mass Spectrometry", USEPA, Region VII, March 1986 (Attachment 2). The detection limit for TCDD was less than 0.300 ppb. Results of 0.300 ppb or less are reported with the qualifier "U" (i.e., not detected).

For any sample with results for TCDD of 1 ppb or greater, confirmation analysis for 2,3,7,8-TCDD was performed using high resolution gas chromatography/low resolution mass spectrometry. If the extract prepared for the initial analysis for TCDD was used for the isomer-specific analysis, the procedures described in USEPA Contract Laboratory Program Statement of Work (SOW) for Rapid Turnaround Dioxin Analysis Multi-Media, November 1986, page III-67 (Attachment 3) were used. If it was necessary to prepare a new extract for the isomer-specific analysis, procedures for sample preparation as described in Attachment 3, page III-32 and analysis by high resolution gas chromatography/low resolution mass spectrometry as described in Attachment 3, page III-54 were used. The quality control/quality assurance procedures followed for the analytical program were according to Attachment 3, page III-61, option 4d and "Regional Technical Assistance for Preparing Quality Assurance Project and Laboratory Plans", ROQA-005/85, revised January, 1986, by Steven R. Lemons, Office of Quality Assurance, Environmental Services Division, USEPA, Region VI (Attachment 4).

Analytical results were communicated by Hercules Incorporated to the EPA RPM and the IT-FAS Project Manager as they became available so that decisions about further sampling could be made. Copies of the summary data report forms, TCDD Final Data Report Form and the GC/MS/MS Worksheet Report Form, for TCDD by semi-

isomer specific procedures and Form B-1S, TCDD Soil Data Report Form for 2,3,7,8-TCDD are included in this report as Appendix B (TCDD) and Appendix C (2,3,7,8-TCDD). Identification of samples corresponding to the sample numbers listed in these data report forms can be found in Tables A-1 and A-2, Appendix A. Copies of the full reports for each sample analyzed are found in Volumes III and IV of this report.

*This section written by Hercules Incorporated and edited by TMS Analytical Services, Inc.

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9.0

9.0 PROJECT DATABASE MANAGEMENT SYSTEM

A Relational Database Management System (RDMS) was used as a sophisticated means of organizing, storing, maintaining, combining, and retrieving sample information. Sample information and analytical data were entered into the system as soon as they were received and routinely screened for accuracy and status changes.

The basic field information was initially recorded on a sample or specimen collection log (see Attachment 5, Figure 1 for an example). This field log was then used to enter the sample data into the computer so that the field information could be linked to the analytical results as soon as they were available. The sample or specimen collection log is considered generic and may contain slots that do not apply to every project; therefore, the collection log headings that are applicable to the fine grid sampling project and which are entered into the database are defined in Table 17. Definitions strictly applicable to analytical data are presented in Table 18.

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TABLE 17

APPLICABLE COLLECTION LOG AND DATABASE HEADINGS AND DEFINITIONS

SAMPLE COLLECTION LOG

Sample Number

A unique alphanumeric identification assigned to each sample at the time of collection.

Date

The date the sample was collected.

Sample Location/Description

Brief comment to describe the location of sample collection including a reference to a pertinent structure or position.

Sample Type

CO

Core; samples are collected as a cross section and examined at intervals, other than soil or sediment.

LI

Liquid; any liquid sample that is not water or oil.

SE

Sediment; sample from area of material deposited by water.

SO

Soil; sample of soil.

Composite Description (or Units in Composite)

Number indicates number of grabs (aliquots) composited.

NA indicates that sample is composed of materials collected from only one sample point.

Elevation

For sediment samples, elevation was used as the depth of water below which the sample was taken (negative numbers). For soil samples, elevation was used for the height above water level.

TABLE 17
APPLICABLE COLLECTION LOG AND DATABASE HEADINGS AND DEFINITIONS
(CONTINUED)

Depth of Take

Applicable to samples that are to be taken at specific depth below the surface in cores and water.

QA/QC Code

QBL

Blank; a sample of material and container that have followed the same path unopened or altered to show that there was no extraneous contamination.

QDU

Duplicate; two separate samples for the purpose of determining degrees of variation of the sample area (i.e., the wipe sampling of two adjacent areas, two adjacent soil samples) in as nearly identical conditions possible.

ORIG

Original sample of a QA/QC sample which requires comparison; reference ORIG and QDU samples.

QDM

Composite mixture check sample.

Lab (abbreviated LB in Sample Table A-1)

TM

TMS Analytical Services, Indianapolis, Indiana.

MK

IT Analytical Services, Middlebrook Pike, Knoxville, Tennessee.

Analysis Request

03

TCDD, if >1 ppb then 2,3,7,8-TCDD.

04

Other analytical parameters (i.e., priority pollutant compounds or waste characterization).

TABLE 17
APPLICABLE COLLECTION LOG AND DATABASE HEADINGS AND DEFINITIONS
(CONTINUED)

Analysis Status (called Sample Status in Tables A-1 and A-2)

01

Priority - analyze immediately

02

Analyze - not a rush sample

03

Hold - archive status

04

EPA Split Sample

NOTE: Headings not defined are considered self-explanatory.

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TABLE 18

ANALYTICAL REPORT ABBREVIATIONS, CODES AND DEFINITIONS

Result Sample No.

A unique alphanumeric identification assigned to each sample at the time of collection.

Dioxin Units

Concentration units for dioxins such as ng/sample for liquid trip and equipment rinsate QC blanks and parts per billion (ppb; ng/gm; µg/kg) for soils and sediment.

Q

Qualifiers.

U

Compound analyzed for but not detected, value given is the detection limit.

2,3,7,8-TCDD

Concentration of the 2,3,7,8 isomer of tetrachlorodibenzo-p-dioxin.

TCDD

Concentration of some of the tetrachlorodibenzo-p-dioxin isomers present, including 2,3,7,8-TCDD.

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APPENDIX
▲

APPENDIX A
SAMPLE TABLES

TABLE A-1

0

TABLE A-1
 NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER	QC PARTNER	REFERENCE LB AREAS	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS	REQUEST
MH1352	29 JUN 88	SE	SEDIMENT, CONFLUENCE OF EAST AND WEST LEGS OF ROCKY BRANCH CREEK	grab	3		TH A	NA	01 03	
MH1353	29 JUN 88	LI	LIQUID, HEXANE EQUIPMENT RINSE		0 QRL		TH A	2 RINSES	01 03	
MH1354	29 JUN 88	SO	SOIL, 0-500 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	5		TH A	50 GRABS	01 03	
MH1355	29 JUN 88	SO	SOIL, 0-500 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	5		TH A	50 GRABS	01 03	TABLE KEY
MH1356	29 JUN 88	SO	SOIL, 0-500 FT 12 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	1		TH A	50 GRABS	03 03	QC - Quality Control
MH1357	29 JUN 88	SO	SOIL, 0-500 FT 12 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	1		TH A	50 GRABS	03 03	QRL - Rinse
MH1358	29 JUN 88	LI	LIQUID, HEXANE, TRIP BLANK		0 QRL		TH A	NA	01 03	QRL - Blank
MH1359	29 JUN 88	SO	SOIL, 0-500 FT 36 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	3		TH A	50 GRABS	03 03	ORIG - Original
MH1360	29 JUN 88	SO	SOIL, 0-500 FT 36 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	3		TH A	50 GRABS	03 03	QDU - Duplicate
MH1361	30 JUN 88	SO	SOIL, 510-1000 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	5		TH A	50 GRABS	01 03	SPLIT - Split
MH1362	30 JUN 88	SO	SOIL, 510-1000 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	5		TH A	50 GRABS	03 03	QDM - Mix Check
MH1363	30 JUN 88	SO	SOIL, 510-1000 FT 12 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	1		TH A	50 GRABS	03 03	LB - Lab
MH1364	30 JUN 88	SO	SOIL, 510-1000 FT 12 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	1		TH A	50 GRABS	03 03	TH - TMS Analytical Services Indianapolis, IN
MH1365	30 JUN 88	SO	SOIL, 510-1000 FT 36 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	3		TH A	50 GRABS	03 03	MK - IT Analytical Services Middlebrook Pike Knoxville, TN
MH1366	30 JUN 88	SO	SOIL, 510-1000 FT 36 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	3		TH A	50 GRABS	03 03	Sample Status
MH1367	30 JUN 88	SO	SOIL, 1010-1500 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	5		TH A	50 GRABS	01 03	01 - Rush
MH1368	30 JUN 88	SO	SOIL, 1010-1500 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	5		TH A	50 GRABS	01 03	02 - Analyze (no rush)
MH1369	30 JUN 88	SO	SOIL, 1010-1500 FT 12 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	1		TH A	50 GRABS	03 03	03 - Hold
MH1370	30 JUN 88	SO	SOIL, 1010-1500 FT 12 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	1		TH A	50 GRABS	03 03	04 - EPA Split
MH1371	30 JUN 88	LI	LIQUID, HEXANE, EQUIPMENT RINSE		0 QRL		TH	NA	03 03	Analysis Request
MH1372	30 JUN 88	SO	SOIL, 1010-1500 FT 36 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	3		TH A	50 GRABS	07 03	03 - TCDD; 2,3,7,8-TCDD
MH1373	30 JUN 88	SO	SOIL, 1010-1500 FT 36 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	3		TH A	50 GRABS	03 03	04 - Other Analytical Parameters
MH1374	30 JUN 88	SO	SOIL, 1510-2000 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	5		TH A	50 GRABS	01 03	
MH1375	30 JUN 88	SO	SOIL, 1510-2000 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	5	ORIG MH1377	TH A	50 GRABS	01 03	
MH1376	01 JUL 88	LI	LIQUID, HEXANE, TRIP BLANK		0 QRL		TH A	NA	01 03	

TABLE A-1
NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER	QC	PARTNER LB AREAS	REFERENCE	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS	REQUEST
WH1377	30 JUN 88	S0	SOIL, 1510-2000 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	5	QDU	WH1375	TH A	50 GRABS	01	03
WH1378	01-JUL-88	SE	SEDIMENT, ROCKY BRANCH, WEST LEG AT VERTAC FENCE	grab	- 4	ORIG	WH1391	TH A	NA	01	03
WH1379	30-JUN-88	S0	SOIL, 1510-2000 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	5	SPLIT	WH1375	TH A	50 GRABS	04	03
WH1380	01-JUL-88	S0	SOIL, 1510-2000 FT 12 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	1			TH A	50 GRABS	03	03
WH1381	01-JUL-88	S0	SOIL, 1510-2000 FT 12 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	1			TH A	50 GRABS	03	03
WH1382	10-JUL-88	S0	SOIL, 1510-2000 FT 36 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	3			TH A	50 GRABS	03	03
WH1383	10-JUL-88	S0	SOIL, 1510-2000 FT 36 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	3			TH A	50 GRABS	03	03
WH1384	01-JUL-88	S0	SOIL, 2010-2230 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	5			TH A	50 GRABS	01	03
WH1385	01-JUL-88	S0	SOIL, 2010-2230 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	.5			TH A	50 GRABS	01	03
WH1386	01-JUL-88	LI	LIQUID, HEXAMER, EQUIPMENT RINSE		0	QRI		TH A	2 RINSES	03	03
WH1387	01-JUL-88	S0	SOIL, 2010-2230 FT 12 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	1			TH A	50 GRABS	03	03
WH1388	01-JUL-88	S0	SOIL, 2010-2230 FT 12 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	1			TH A	50 GRABS	03	03
WH1389	01-JUL-88	S0	SOIL, 2010-2230 FT 36 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, LEFT BANK	0-3 in	3			TH A	50 GRABS	03	03
WH1390	01-JUL-88	S0	SOIL, 2010-2230 FT 36 IN ABOVE WATER, ROCKY BRANCH, WEST LEG, RIGHT BANK	0-3 in	3			TH A	50 GRABS	03	03
WH1391	01-JUL-88	SE	SEDIMENT, ROCKY BRANCH, WEST LEG AT VERTAC FENCE	grab	- 4	SPLIT	WH1378	TH A	NA	04	03
WH1392	02-JUL-88	S0	SOIL, BAYOU METO, NFR, 6 IN FROM WATER, RIGHT BANK	0-3 in	5			TH K	50 GRABS	01	03
WH1393	02-JUL-88	S0	SOIL, BAYOU METO, NFR, 6 IN FROM WATER, LEFT BANK	0-3 in	5			TH K	50 GRABS	01	03
WH1394	03-JUL-88	S0	SOIL, BAYOU METO, NFR, 36 IN FROM WATER, RIGHT BANK	0-3 in	3			TH K	50 GRABS	03	03
WH1395	03-JUL-88	S0	SOIL, BAYOU METO, NFR, 36 IN FROM WATER, LEFT BANK	0-3 in	3			TH K	50 GRABS	03	03
WH1396	03-JUL-88	S0	SOIL, BAYOU METO, NFR, 60 IN FROM WATER, RIGHT BANK	0-3 in	5			TH K	50 GRABS	03	03
WH1397	03-JUL-88	S0	SOIL, BAYOU METO, NFR, 60 IN FROM WATER, LEFT BANK	0-3 in	5			TH K	50 GRABS	03	03
WH1398	03-JUL-88	S0	SOIL, BAYOU METO, 6 IN FROM WATER, RIGHT BANK	0-3 in	5	ORIG	WH1399	TH J	50 GRABS	01	03
WH1399	03-JUL-88	S0	SOIL, BAYOU METO, 6 IN FROM WATER, RIGHT BANK	0-3 in	5	SPLIT	WH1398	TH J	50 GRABS	04	03
WH1400	03-JUL-88	S0	SOIL, BAYOU METO, 36 IN FROM WATER, RIGHT BANK	0-3 in	1			TH J	50 GRABS	01	03
WH1401	03-JUL-88	S0	SOIL, BAYOU METO, 6 IN FROM WATER, RIGHT BANK	0-3 in	5			TH J	50 GRABS	01	03

TABLE KEY

QC - Quality Control

QRI - Rinse

QBL - Blank

ORIG - Original

QDU - Duplicate

SPLIT - Split

QDM - Mix Check

LI - Lab

TH - TMS Analytical

Services

Indianapolis, IN

MK - IT Analytical

Services

Middlebrook Pike

Knoxville, TN

Sample Status

01 - Rush

02 - Analyze (no rush)

03 - Hold

04 - EPA Split

Analysis Request

03 - TCDD;

2,3,7,8-TCDD

04 - Other Analytical

Parameters

TABLE A-1
NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER QC	QC PARTNER LB AREAS	REFERENCE	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS	REQUEST
WH1402	03-JUL-88	S0	SOIL, BAYOU METO, 60 IN. FROM WATER, RIGHT BANK	0-3 in	5		TH J	50 GRABS	03	03
WH1403	03-JUL-88	L1	HEXANE EQUIPMENT RINSE		0 QM1		TH J	NA	03	03
WH1404	04-JUL-88	S0	SOIL, BAYOU METO AT HWY 161 BRIDGE AT 6 IN FROM WATER, RIGHT BANK	0-3 in	5		TH L	50 GRABS	01	03
WH1405	04-JUL-88	S0	SOIL, BAYOU METO AT HWY 161 BRIDGE AT 6 IN FROM WATER, LEFT BANK	0-3 in	5		TH L	42 GRABS	01	03
WH1406	04-JUL-88	S0	SOIL, BAYOU METO AT HWY 161 BRIDGE AT 36 IN FROM WATER, RIGHT BANK	0-3 in	3		TH L	50 GRABS	03	03
WH1407	04-JUL-88	S0	SOIL, BAYOU METO HWY 161 BRIDGE, 36 IN FROM WATER, LEFT BANK	0-3 in	3		TH L	50 GRABS	03	03
WH1408	04-JUL-88	S0	SOIL, BAYOU METO HWY 161 BRIDGE, 60 IN FROM WATER, RIGHT BANK	0-3 in	5		TH L	50 GRABS	03	03
WH1409	04-JUL-88	S0	SOIL, BAYOU METO HWY 161 BRIDGE, 60 IN FROM WATER, LEFT BANK	0-3 in	5		TH L	50 GRABS	03	03
WH1410	04-JUL-88	S0	SOIL, MANHOLE #2043, SOUTH REDMOND ROAD	0-3 in	0		TH N	36 GRABS	01	03
WH1411	04-JUL-88	S0	SOIL, DRY CREEK BED, NEXT TO ROCKY BRANCH, SOUTH OF REDMOND ROAD	0-3 in	0 OR10	WH1412	TH N	50 GRABS	01	03
WH1412	04-JUL-88	S0	SOIL, DRY CREEK BED NEXT TO ROCKY BRANCH, SOUTH OF REDMOND ROAD	0-3 in	0 QDU	WH1411	TH N	50 GRABS	01	03
WH1413	04-JUL-88	S0	SOIL, DRY CREEK BED, NEXT TO ROCKY BRANCH, S OF REDMOND ROAD, EPA SPLIT	0-3 in	0 SPLIT	WH1411	TH N	50 GRABS	04	03
WH1414	04-JUL-88	S0	SOIL, DRY CREEK BED, 1/4 MILE SOUTH OF REDMOND RD, NEXT TO ROCKY BRANCH	0-3 in	0		TH N	25 GRABS	01	03
WH1415	04-JUL-88	S0	SOIL, 10-500 FT, 6 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	5		TH B	50 GRABS	01	03
WH1416	04-JUL-88	S0	SOIL, BLANK		QBL		TH B	NA	01	03
WH1417	04-JUL-88	S0	SOIL, 10-500 FT, 12 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	1		TH B	50 GRABS	03	03
WH1418	04-JUL-88	S0	SOIL, 10-500 FT, 6 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	5		TH B	50 GRABS	01	03
WH1419	04-JUL-88	S0	SOIL, 10-500 FT, 36 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	3		TH B	50 GRABS	03	03
WH1420	04-JUL-88	S0	SOIL, 10-500 FT, 12 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	1		TH B	50 GRABS	03	03
WH1421	04-JUL-88	S0	SOIL, BLANK		QBL		TH B	NA	01	03
WH1422	04-JUL-88	S0	SOIL, 10-500 FT, 36 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	3		TH B	50 GRABS	03	03
WH1423	04-JUL-88	L1	LIQUID, HEXANE, EQUIPMENT RINSE		QRI		TH B	NA	01	03
WH1424	05-JUL-88	S0	SOIL, 510-1000 FT, 6 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	5		TH B	50 GRABS	01	03
WH1425	05-JUL-88	S0	SOIL, 510-1000 FT, 6 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	5		TH B	50 GRABS	01	03
WH1426	05-JUL-88	S0	SOIL, 510-1000 FT, 12 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	1		TH B	50 GRABS	03	03

TABLE KEY

QC - Quality Control

QRI - Rinse

QBL - Blank

ORIG - Original

QDU - Duplicate

SPLIT - Split

QDM - Mix Check

L.D - Lab

TH - TMS Analytical Services
Indianapolis, INHK - IT Analytical Services
Middlebrook Pike
Knoxville, TN

Sample Status

01 - Rush

02 - Analyze (no rush)

03 - Hold

04 - EPA Split

Analysis Request

03 - TCDD:

2,3,7,8-TCDD

04 - Other Analytical Parameters

A-1

01 15

TABLE A-1
NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER		REFERENCE QC PARTNER LB AREAS	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS	REQUEST
					QC	QC				
MH1427	05-JUL-88	SO	SOIL 510-1000 FT 12 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	1		TM B	50 GRABS	03	03
MH1428	05-JUL-88	SO	SOIL 510-1000 FT 36 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	3		TM B	50 GRABS	03	03
MH1429	05-JUL-88	SO	SOIL 510-1000 FT 36 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	3		TM B	50 GRABS	03	03
MH1430	05-JUL-88	SO	SOIL 1010-1500 FT 6 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	5		TM B	46 GRABS	01	03
MH1431	05-JUL-88	SO	SOIL 1010-1500 FT 6 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	5		TM B	46 GRABS	01	03
MH1432	05 JUL 88	SO	SOIL 1010-1500 FT 12 IN ABOVE WATER ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	1		TM B	46 GRABS	03	03
MH1433	05-JUL-88	SO	SOIL 1010-1500 FT 12 IN ABOVE WATER ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	1		TM B	46 GRABS	03	03
MH1434	05 JUL 88	SO	SOIL 1010-1500 FT 36 IN ABOVE WATER ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	3		TM B	46 GRABS	03	03
MH1435	05-JUL-88	SO	SOIL 1010-1500 FT 36 IN ABOVE WATER ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	3		TM B	46 GRABS	03	03
MH1436	05 JUL 88	SO	SOIL 1510-2000 FT 6 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	5		TM B	44 GRABS	01	03
MH1437	05 JUL 88	SO	SOIL 1510-2000 FT 6 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	5		TM B	44 GRABS	01	03
MH1438	05-JUL-88	SO	SOIL 1510-2000 FT 12 IN ABOVE WATER ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	1		TM B	44 GRABS	03	03
MH1439	05 JUL 88	SO	SOIL 1510-2000 FT 12 IN ABOVE WATER ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	1		TM B	44 GRABS	03	03
MH1440	05-JUL-88	SO	SOIL 1510-2000 FT 36 IN ABOVE WATER ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	3		TM B	44 GRABS	03	03
MH1441	05 JUL 88	SO	SOIL 1510-2000 FT 36 IN ABOVE WATER ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	3		TM B	44 GRABS	03	03
MH1442	05-JUL-88	LI	LIONIO, HEXANE, EQUIPMENT RINSE			ORI	TM B	NA	01	03
MH1443	05-JUL-88	SO	SOIL 2010-2500 FT 6 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	5		TM B	50 GRABS	01	03
MH1444	05-JUL-88	SO	SOIL 2010-2500 FT 6 IN ABOVE WATER, ROCKY BRANCH, EAST LEG, RIGHT BANK	0-3 in	5		TM B	50 GRABS	01	03
MH1445	05-JUL-88	SO	SOIL 2010-2500 FT 12 IN ABOVE WATER ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	1		TM B	50 GRABS	03	03
MH1446	07 JUL 88	SO	SOIL, BLANK		0	OEL	TM C	NA	01	03
MH1447	07 JUL 88	SO	SOIL 2010-2500 FT 36 IN ABOVE WATER ROCKY BRANCH, EAST LEG, LEFT BANK	0-3 in	3		TM B	50 GRABS	03	03
MH1448	07 JUL 88	LI	LIONIO HEXANE, EQUIPMENT RINSE			ORI	TM C	NA	01	03
MH1449	10 JUL 88	SO	SOIL 2510-2940 FT 6 IN ABOVE WATER, EAST ROCKY BRANCH, LEFT BANK	0-3 in	5	ORIG MH1450	TM A	37 GRABS	01	03
MH1450	10 JUL 88	SO	SOIL 2510-2940 FT 6 IN ABOVE WATER, EAST ROCKY BRANCH, LEFT BANK	0-3 in	5	ODU MH1449	TM A	37 GRABS	01	03
MH1451	10 JUL 88	SO	SOIL 2510-2940 FT 6 IN ABOVE WATER, E ROCKY BRANCH LEFT BANK EPA SPLIT	0-3 in	5	SPLIT MH1449	TM A	37 GRABS	04	03

TABLE KEY

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Sample Status

01 - Rush

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Analysis Request

03 - TCDD;

2,3,7,8-TCDD

04 - Other Analytical Parameters

TABLE A-1
NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE		REFERENCE	UNITS IN COMPOSITE	SAMPLE ANALYSIS	
					WATER	QC			QC PARTNER	LAB AREAS
WH1452	06 JUL 88	SO	SOIL, 2 FT FROM WATERS EDGE AROUND THE PERIMETER OF LAKE BORGEE	0-3 in	0		TM J	38 GRABS	01	03
WH1453	07-JUL-88	SO	SOIL, ROW 1, SOUTH 0-250 FEET, EAST ROCKY BRANCH	0-3 in	0		TM C	55 GRABS	01	03
WH1454	07-JUL-88	SO	SOIL, ROW 1, NORTH 0-250 FEET, EAST ROCKY BRANCH	0-3 in.	0		TM C	55 GRABS	01	03
WH1455	07 JUL 88	SO	SOIL, ROW 1, EAST 0-250 FEET, EAST ROCKY BRANCH	0-3 in	0		TM C	55 GRABS	01	03
WH1456	07 JUL 88	SO	SOIL, ROW 2, SOUTH, 0-250 FEET, EAST ROCKY BRANCH	0-3 in	0		TM C	53 GRABS	03	03
WH1457	07-JUL-88	SO	SOIL, ROW 2, NORTH, 0-250 FEET, EAST ROCKY BRANCH	0-3 in	0		TM C	53 GRABS	03	03
WH1458	07 JUL 88	SO	SOIL, ROW 2, EAST, 0-250 FEET, EAST ROCKY BRANCH	0-3 in.	0		TM C	53 GRABS	03	03
WH1459	07 JUL 88	SO	SOIL, ROW 1, NORTH, 500-750 FEET, EAST ROCKY BRANCH	0-3 in	0		TM C	58 GRABS	01	03
WH1460	07 JUL 88	SO	SOIL, ROW 1, SOUTH, 500-750 FEET, EAST ROCKY BRANCH	0-3 in	0		TM C	58 GRABS	01	03
WH1461	07 JUL 88	SO	SOIL, ROW 1, EAST, 500-750 FEET, EAST ROCKY BRANCH	0-3 in.	0		TM C	58 GRABS	01	03
WH1462	07 JUL 88	LI	LIQUID, HEXANE, TRIP BLANK		0	QBL	TM C	NA	01	03
WH1463	07 JUL 88	SO	SOIL, ROW 2, NORTH, 500-750 FEET, EAST ROCKY BRANCH	0-3 in	0		TM C	58 GRABS	03	03
WH1464	07 JUL 88	SO	SOIL, ROW 2, SOUTH, 500-750 FEET, EAST ROCKY BRANCH	0-3 in.	0		TM C	58 GRABS	03	03
WH1465	07 JUL 88	SO	SOIL, ROW 2, EAST, 500-750 FEET, EAST ROCKY BRANCH	0-3 in.	0		TM C	58 GRABS	03	03
WH1466	07-JUL-88	SO	SOIL, ROW 1, NORTH, 750-1000 FEET, EAST ROCKY BRANCH	0-3 in	0		TM C	47 GRABS	01	03
WH1467	08 JUL 88	SO	SOIL, ROW 1, SOUTH, 750-1000 FEET, EAST ROCKY BRANCH	0-3 in	0	ORIG WH1468	TM C	47 GRABS	01	03
WH1468	08 JUL 88	SO	SOIL, ROW 1, SOUTH, 750-1000 FEET, EAST ROCKY BRANCH	0-3 in.	0	ODU WH1467	TM C	47 GRABS	01	03
WH1469	08 JUL 88	SO	SOIL, ROW 1, EAST, 750-1000 FEET, EAST ROCKY BRANCH	0-3 in	0		TM C	47 GRABS	01	03
WH1470	08 JUL 88	SO	SOIL, ROW 2, EAST, 750-1000 FEET, EAST ROCKY BRANCH	0-3 in	0		TM C	41 GRABS	03	03
WH1471	08 JUL 88	SO	SOIL BLANK		0	QBL	TM C	NA	01	03
WH1472	08-JUL-88	SO	SOIL, ROW 2, NORTH, 750-1000 FEET, EAST ROCKY BRANCH	0-3 in	0		TM C	41 GRABS	03	03
WH1473	08 JUL 88	SO	SOIL, ROW 2, SOUTH, 750-1000 FEET, EAST ROCKY BRANCH	0-3 in.	0		TM C	41 GRABS	03	03
WH1474	08-JUL-88	SO	SOIL, ROW 1, EAST, 1000 FT TO 1250 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	46 GRABS	01	03
WH1475	08-JUL-88	SO	SOIL, ROW 1, NORTH, 1000 FT TO 1250 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	46 GRABS	01	03
WH1476	08 JUL 88	SO	SOIL, ROW 1, SOUTH, 1000 FT TO 1250 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	46 GRABS	01	03

TABLE KEY

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ORIG - Original

ODU - Duplicate

SPLY - Split

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LB - Lab

TM - TMS Analytical Services Indianapolis, IN

MK - IT Analytical Services Middlebrook Pike Knoxville, TN

Sample Status

01 - Rush

02 - Analyze (no rush)

03 - Hold

04 - EPA Split

Analysis Request

03 - TCDD;

2,3,7,8-TCDD

04 - Other Analytical Parameters

TABLE A-1
NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER	QC PARTNER	REFERENCE LB AREAS	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS	REQUEST
WH1477	08-JUL-88	SO	SOIL, ROW 2, NORTH, 1000 FT TO 1250 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	43 GRABS	01	03
WH1478	08-JUL-88	SO	SOIL, ROW 2, SOUTH, 1000 FT TO 1250 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	43 GRABS	01	03
WH1479	08-JUL-88	SO	SOIL, ROW 2, EAST, 1000 FT TO 1250 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	43 GRABS	01	03
WH1480	08-JUL-88	SO	SOIL, ROW 1, NORTH, 1250 FT TO 1500 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	46 GRABS	01	03
WH1481	08-JUL-88	SO	SOIL, ROW 1, SOUTH, 1250 FT TO 1500 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	46 GRABS	01	03
WH1482	08-JUL-88	LI	LIQUID, HEXANE, EQUIPMENT RINSE		0 QRI		TM C	NA	01	03
WH1483	08-JUL-88	SO	SOIL, ROW 1, EAST, 1250 FT TO 1500 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	46 GRABS	01	03
WH1484	08-JUL-88	SO	SOIL, ROW 2, EAST, 1250 FT TO 1500 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	43 GRABS	03	03
WH1485	08-JUL-88	SO	SOIL, ROW 2, NORTH, 1250 FT TO 1500 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	43 GRABS	03	03
WH1486	08-JUL-88	SO	SOIL, ROW 2, SOUTH, 1250 FT TO 1500 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	43 GRABS	03	03
WH1487	09-JUL-88	SO	SOIL, ROW 2, NORTH, 1500 FT TO 1750 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	50 GRABS	03	03
WH1488	09-JUL-88	SO	SOIL, ROW 2, SOUTH, 1500 FT TO 1750 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	50 GRABS	03	03
WH1489	09-JUL-88	SO	SOIL, ROW 2, EAST, 1500 FT TO 1750 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	50 GRABS	03	01
WH1490	09-JUL-88	SO	SOIL, ROW 1, EAST, 1500 FT TO 1750 FT, EAST ROCKY BRANCH	0-3 in	0	ORIG WH1493	TM C	48 GRABS	01	03
WH1491	09-JUL-88	SO	SOIL, ROW 1, SOUTH, 1500 FT TO 1750 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	48 GRABS	01	03
WH1492	09-JUL-88	SO	SOIL, ROW 1, NORTH, 1500 FT TO 1750 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	48 GRABS	01	03
WH1493	09-JUL-88	SO	SOIL, ROW 1, EAST, 1500 FT TO 1750 FT, EAST ROCKY BRANCH	0-3 in	0	QDU WH1490	TM C	48 GRABS	01	03
WH1494A	09-JUL-88	SO	SOIL, ROW 1, EAST, 1500-1750 FT, EAST R. BRANCH, A QDAD MIX CHECK	0-3 in	0	QCM WH1490	TM C	48 GRABS	01	03
WH1495B	09-JUL-88	SO	SOIL, ROW 1, EAST, 1500-1750 FT, EAST R. BRANCH, B QDAD MIX CHECK	0-3 in	0	QCM WH1490	TM C	48 GRABS	01	03
WH1496C	09-JUL-88	SO	SOIL, ROW 1, EAST, 1500-1750 FT, EAST R. BRANCH, C QDAD MIX CHECK	0-3 in	0	QCM WH1490	TM C	48 GRABS	01	03
WH1497D	09-JUL-88	SO	SOIL, ROW 1, EAST, 1500-1750 FT, EAST R. BRANCH, D QDAD MIX CHECK	0-3 in	0	QCM WH1490	TM C	48 GRABS	01	03
WH1498	09-JUL-88	SO	SOIL, ROW 1, EAST, 1750 FT TO 1880 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	26 GRABS	01	03
WH1499	09-JUL-88	SO	SOIL, ROW 1, NORTH, 1750 FT TO 1880 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	26 GRABS	01	03
WH2000	09-JUL-88	SO	SOIL, ROW 1, SOUTH, 1750 FT TO 1880 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	26 GRABS	01	03
WH2001	09-JUL-88	SO	SOIL, ROW 2, EAST, 1750 FT TO 1880 FT, EAST ROCKY BRANCH	0-3 in	0		TM C	26 GRABS	03	03

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Indianapolis, INMX - IT Analytical Services
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Knoxville, TN

Sample Status

01 - Rush

02 - Analyze (no rush)

03 - Hold

04 - EPA Split

Analysis Request

03 - TCDD;
2,3,7,8-TCDD04 - Other Analytical
Parameters

TABLE A-1
 NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER		REFERENCE	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS	ANALYSIS REQUEST
					QC	QC PARTNER LB AREAS				
MR2002	09-JUL-88	SO	SOIL, ROW 2, NORTH, 1750 FT TO 1800 FT, EAST ROCKY BRANCH	0-3 in.	0		TH C	26 GRABS	03	03
MR2003	09-JUL-88	SO	SOIL, ROW 2, SOUTH, 1750 FT TO 1800 FT, EAST ROCKY BRANCH	0-3 in.	0		TH C	26 GRABS	03	03
MR2004	09-JUL-88	SO	SOIL, ROW 1, NORTH, 250-500 FEET, EAST ROCKY BRANCH	0-3 in.	0		TH C	50 GRABS	01	03
MR2005	09-JUL-88	SO	SOIL, ROW 1, SOUTH, 250-500 FEET, EAST ROCKY BRANCH	0-3 in.	0		TH C	50 GRABS	01	03
MR2006	09-JUL-88	SO	SOIL, ROW 1, EAST, 250-500 FEET, EAST ROCKY BRANCH	0-3 in.	0		TH C	50 GRABS	01	03
MR2007	09-JUL-88	SO	SOIL, ROW 2, NORTH, 250-500 FEET, EAST ROCKY BRANCH	0-3 in.	0		TH C	50 GRABS	03	03
MR2008	09-JUL-88	SO	SOIL, ROW 2, SOUTH, 250-500 FEET, EAST ROCKY BRANCH	0-3 in.	0		TH C	50 GRABS	03	03
MR2009	09-JUL-88	SO	SOIL, ROW 2, EAST, 250-500 FEET, EAST ROCKY BRANCH	0-3 in.	0		TH C	50 GRABS	03	03
MR2010	09-JUL-88	LI	LIQUID, HEXANE, EQUIPMENT RINSE		0	QBL	TH A	NA	01	03
MR2011	10-JUL-88	SO	SOIL, 2510-2940 FT, 12 IN ABOVE WATER EAST ROCKY BRANCH, LEFT BANK	0-3 in.	.5		TH A	37 GRABS	03	03
MR2012	10-JUL-88	SO	SOIL, 2010-2500 FT, 12 IN ABOVE WATER EAST ROCKY BRANCH, RIGHT BANK	0-3 in.	.5		TH A	50 GRABS	03	03
MR2013	10-JUL-88	SO	SOIL, 2510-2940 FT, 36 IN ABOVE WATER EAST ROCKY BRANCH, LEFT BANK	0-3 in.	3		TH A	37 GRABS	03	03
MR2014	10-JUL-88	SO	SOIL, 2010-2500 FT, 36 IN ABOVE WATER EAST ROCKY BRANCH, RIGHT BANK	0-3 in.	3		TH A	50 GRABS	03	03
MR2015	10-JUL-88	SO	SOIL, BLANK		0	QBL	TH A	NA	01	03
MR2016	10-JUL-88	SO	SOIL, 2510-2940 FT, 6 IN ABOVE WATER, EAST ROCKY BRANCH, RIGHT BANK	0-3 in.	.5		TH A	37 GRABS	01	03
MR2017	10-JUL-88	LI	LIQUID, HEXANE, EQUIPMENT RINSE		0	QBL	TH C	NA	01	03
MR2018	10-JUL-88	SO	SOIL, 2510-2940 FT, 12 IN ABOVE WATER EAST ROCKY BRANCH, RIGHT BANK	0-3 in.	1		TH A	37 GRABS	01	03
MR2019	10-JUL-88	SO	SOIL, ROW 2, WEST, 0-250 FT WEST ROCKY BRANCH	0-3 in.	0		TH C	51 GRABS	01	03
MR2020	10-JUL-88	SO	SOIL, 2510-2940 FT, 36 IN ABOVE WATER EAST ROCKY BRANCH, RIGHT BANK	0-3 in.	3		TH A	37 GRABS	03	03
MR2021	10-JUL-88	SO	SOIL, ROW 2, NORTH, 0-250 FT, WEST ROCKY BRANCH	0-3 in.	0		TH C	51 GRABS	01	03
MR2022	10-JUL-88	SO	SOIL, ROW 2, SOUTH, 0-250 FT, WEST ROCKY BRANCH	0-3 in.	0		TH C	51 GRABS	01	03
MR2023	10-JUL-88	SO	SOIL, ROW 1, NORTH, 0-250 FT, WEST ROCKY BRANCH	0-3 in.	0		TH C	53 GRABS	01	03
MR2024	10-JUL-88	SO	SOIL, ROW 1, WEST, 0-250 FT, WEST ROCKY BRANCH	0-3 in.	0		TH C	53 GRABS	01	03
MR2025	10-JUL-88	SO	SOIL, ROW 1, SOUTH, 0-250 FT, WEST ROCKY BRANCH	0-3 in.	0		TH C	53 GRABS	01	03
MR2026	11-JUL-88	SO	SOIL, OLD SLUDGE DRYING BEDS, OLD TREATMENT PLANT	0-3 in.	0	ORIG MR2027	TH EI	73 GRABS	01	03

TABLE KEY

QC - Quality Control

QRT - Rinse

QBL - Blank

ORIG - Original

QDU - Duplicate

SPLT - Split

QDM - Mix Check

LB - Lab

TH - TMS Analytical Services
Indianapolis, INMX - IT Analytical Services
Middlebrook Pike
Knoxville, TN

Sample Status

01 - Rush

02 - Analyze (no rush)

03 - Hold

04 - EPA Split

Analysis Request

03 - TCDD;

2,3,7,8-TCDD

04 - Other Analytical Parameters

TABLE A-1
NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER		REFERENCE QC PARTNER LB AREAS	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS REQUEST	
					QC	QC PARTNER				
MR2027	11-JUL-88	S0	SOIL, OLD SLUDGE DRYING BEDS, OLD TREATMENT PLANT	0-3 in	0	00U	MR2026	TH E1	73 GRABS	01 03
MR2028	11-JUL-88	S0	SOIL, OLD SLUDGE DRYING BEDS, OLD TREATMENT PLANT	EPA SPLIT	0-3 in	0	SPLIT	MR2026	TH E1	73 GRABS 04 03
MR2029	11-JUL-88	S0	SOIL, PERIMETER OF OLD DRYING BEDS, OLD TREATMENT PLANT	0-3 in	0			TH E1	66 GRABS	01 03
MR2030	11-JUL-88	S0	SOIL, AREA AROUND THE CLARIFIERS AT THE OLD SPACE TREATMENT PLANT	0-3 in.	0			TH E2	39 GRABS	01 03
MR2031	11 JUL 88	S0	SOIL, ROW 1, NORTH, 250-500 FEET, WEST ROCKY BRANCH	0-3 in	0			TH C	50 GRABS	01 03
MR2032	11-JUL-88	S0	SOIL, ROW 1, SOUTH, 250-500 FEET, WEST ROCKY BRANCH	0-3 in.	0			TH C	50 GRABS	01 03
MR2033	11-JUL-88	S0	SOIL, ROW 1, WEST, 250-500 FEET, WEST ROCKY BRANCH	0-3 in.	0			TH C	50 GRABS	01 03
MR2034	11-JUL-88	S0	SOIL, ROW 2, WEST, 250-500 FEET, WEST ROCKY BRANCH	0-3 in	0			TH C	50 GRABS	01 03
MR2035	11-JUL-88	S0	SOIL, ROW 2, NORTH, 250-500 FEET, WEST ROCKY BRANCH	0-3 in	0			TH C	50 GRABS	01 03
MR2036	11-JUL-88	S0	SOIL, ROW 2, SOUTH, 250-500 FEET, WEST ROCKY BRANCH	0-3 in	0			TH C	50 GRABS	01 03
MR2037	11-JUL-88	S0	SOIL, ROW 1, NORTH, 500-750 FEET, WEST ROCKY BRANCH	0-3 in	0			TH C	48 GRABS	01 03
MR2038	11-JUL-88	S0	SOIL, ROW 1, SOUTH 500-750 FEET, WEST ROCKY BRANCH	0-3 in	0			TH C	48 GRABS	01 03
MR2039	11 JUL 88	S0	SOIL, ROW 1, WEST, 500-750 FEET, WEST ROCKY BRANCH	0-3 in.	0	ORIG	MR2040	TH C	48 GRABS	01 03
MR2040	11-JUL-88	S0	SOIL, ROW 1, WEST 500-750 FEET, WEST ROCKY BRANCH	0-3 in	0	00U	MR2039	TH C	48 GRABS	01 03
MR2041	11-JUL-88	S0	SOIL, ROW 1, WEST 500-750 FEET, WEST ROCKY BRANCH, EPA SPLIT.	0-3 in.	0	SPLIT	MR2039	C	48 GRABS	04 03
MR2042	11-JUL-88	S0	SOIL, ROW 2, SOUTH, 500-750 FEET, WEST ROCKY BRANCH	0-3 in	0			TH C	45 GRABS	01 03
MR2043	11-JUL-88	S0	SOIL, ROW 2, WEST 500-750 FEET, WEST ROCKY BRANCH	0-3 in	0			TH C	45 GRABS	01 03
MR2044	11-JUL-88	S0	SOIL, ROW 2, NORTH, 500-750 FEET, WEST ROCKY BRANCH	0-3 in	0			TH C	45 GRABS	01 03
MR2045	11-JUL-88	SE	SEDIMENT, EAST ROCKY BRANCH AT 1704 HILL ROAD PROPERTY LINE	grab	- 25	ORIG	MR2046	TH B	NA	01 03
MR2046	11-JUL-88	SE	SEDIMENT, EAST ROCKY BRANCH AT 1704 HILL ROAD PROPERTY LINE	grab	- 25	00U	MR2045	TH B	NA	01 03
MR2047	11-JUL-88	SE	SEDIMENT, EAST ROCKY BRANCH AT 1704 HILL ROAD PROPERTY LINE, EPA SPLIT	0-1 in	- 25	SPLIT	MR2045	B	NA	04 03
MR2048	11 JUL 88	LI	LIQUID, HEXANE, TRIP BLANK		0	ORL		TH C	NA	01 03
MR2049	13-JUL-88	S0	SOIL, MARKOLE #2734, EAST, 600 OAKLEY LANE	0-3 in	0			TH C	8 GRABS	01 03
MR2050	13-JUL-88	S0	SOIL, MARKOLE #2734, SOUTH, 600 OAKLEY LANE	0-3 in	0			TH C	8 GRABS	01 03
MR2051	13-JUL-88	S0	SOIL, BLANK		0	ORL		TH C	NA	01 03

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00U - Duplicate

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QDM - Mix Check

L.B - Lab

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Analysis Request

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2,3,7,8-TCDD

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TABLE A-1
NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER	QC PARTNER	REFERENCE LB AREAS	UNITS IN COMPOSITE	SAMPLE STATUS	ANALYSIS REQUEST
MR2052	13-JUL-88	S0	SOIL, HANNOLE #2734, WEST, 688 OAKLEY LANE	0-3 in	0		TM C	8 GRABS	01	03
MR2053	13-JUL-88	S0	SOIL, ROW 1, SOUTH, 750-930 FEET, WEST ROCKY BRANCH	0-3 in	0		TM C	36 GRABS	01	03
MR2054	13-JUL-88	S0	SOIL, ROW 1, NORTH, 750-930 FEET, WEST ROCKY BRANCH	0-3 in	0	ORIG MIX	TM C	36 GRABS	01	03
MR2055A	13-JUL-88	S0	SOIL, ROW 1, NORTH, 750-930 FEET, W. ROCKY BRANCH, MIX CHECK A	0-3 in	0	ODM MR2054	TM C	36 GRABS	01	03
MR2056B	13-JUL-88	S0	SOIL, ROW 1, NORTH, 750-930 FEET, W. ROCKY BRANCH, MIX CHECK B	0-3 in	0	ODM MR2054	TM C	36 GRABS	01	03
MR2057C	13-JUL-88	S0	SOIL, ROW 1, NORTH, 750-930 FEET, W. ROCKY BRANCH, MIX CHECK C	0-3 in	0	ODM MR2054	TM C	36 GRABS	01	03
MR2058D	13-JUL-88	S0	SOIL, ROW 1, NORTH, 750-930 FEET, W. ROCKY BRANCH, MIX CHECK D	0-3 in	0	ODM MR2054	TM C	36 GRABS	01	03
MR2059	13-JUL-88	S0	SOIL, ROW 1, WEST, 750-930 FEET, WEST ROCKY BRANCH	0-3 in	0		TM C	36 GRABS	01	03
MR2060	13-JUL-88	S0	SOIL, ROW 2, WEST, 750-930 FEET, WEST ROCKY BRANCH	0-3 in	0		TM C	36 GRABS	01	03
MR2061	13-JUL-88	S0	SOIL, ROW 2, NORTH, 750-930 FEET, WEST ROCKY BRANCH	0-3 in	0		TM C	36 GRABS	01	03
MR2062	13-JUL-88	L1	EQUIPMENT RINSE, HEXANE		0	ORIG	TM C	NA	01	03
MR2063	13-JUL-88	S0	SOIL, ROW 2, SOUTH, 750-930 FEET, WEST ROCKY BRANCH	0-3 in	0		TM C	36 GRABS	01	03
MR2064	13-JUL-88	S0	SOIL, BLANK		0	ORIG	TM C	NA	01	03
MR2065	13-JUL-88	S0	SOIL, ROW 1, WEST, 2113 WEST LANE	0-3 in	0	ORIG MR2066	TM C	25 GRABS	01	03
MR2066	13-JUL-88	S0	SOIL, ROW 1, WEST, 2113 WEST LANE	0-3 in	0	ODM MR2065	TM C	26 GRABS	01	03
MR2067	13-JUL-88	S0	SOIL, ROW 1, NORTH, 2113 WEST LANE	0-3 in	0		TM C	26 GRABS	01	03
MR2068	13-JUL-88	S0	SOIL, ROW 1, SOUTH, 2113 WEST LANE	0-3 in	0		TM C	26 GRABS	01	03
MR2069	13-JUL-88	S0	SOIL, ROW 2, WEST, 2113 WEST LANE	0-3 in	0		TM C	22 GRABS	03	03
MR2070	13-JUL-88	S0	SOIL, ROW 2, NORTH, 2113 WEST LANE	0-3 in	0		TM C	22 GRABS	03	03
MR2071	13-JUL-88	S0	SOIL, ROW 2, SOUTH, 2113 WEST LANE	0-3 in	0		TM C	22 GRABS	03	03
MR2072	13-JUL-88	L1	LIQUID, HEXANE, TRIP BLANK		0	ORIG	TM C	NA	01	03
MR2073	14-JUL-88	S0	SOIL, ROW 1, WEST, 2113 WEST LANE	0-3 in	0		TM C	11 GRABS	01	03
MR2074	14-JUL-88	S0	SOIL, ROW 1, NORTH, 2113 WEST LANE	0-3 in	0		TM C	11 GRABS	01	03
MR2075	14-JUL-88	S0	SOIL, ROW 1, SOUTH, 2113 WEST LANE	0-3 in	0		TM C	11 GRABS	01	03
MR2076	14-JUL-88	S0	SOIL, ROW 2, WEST, 2113 WEST LANE	0-3 in	0		TM C	14 GRABS	03	03

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QDU - Duplicate

SPLIT - Split

QUM - Mix Check

LB - Lab

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Middlebrook Pike
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Sample Status

01 - Rush

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Analysis Request

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2,3,7,8-TCDD

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TABLE A-1
 NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE		REFERENCE	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS	ANALYSIS REQUEST
					WATER	QC				
MI2077	14 JUL-88	SO	SOIL, ROW 2, SOUTH, WEST LANE	0-3 in	0		TM C	14 GRABS	03	03
MI2078	14 JUL-88	SO	SOIL, ROW 2 NORTH, 2111 WEST LANE	0-3 in	0		TM C	14 GRABS	03	03
MI2079	14 JUL-88	SO	SOIL, BLANK		0	QBL	TM C	NA	01	03
MI2080	14 JUL-88	SO	SOIL, ROW 1, NORTH, 2112 WEST LANE	0-3 in	0		TM C	15 GRABS	01	03
MI2081	14 JUL-88	SO	SOIL, ROW 1, SOUTH, 2112 WEST LANE	0-3 in	0		TM C	15 GRABS	01	03
MI2082	14 JUL-88	SO	SOIL, ROW 1, WEST, 2112 WEST LANE	0-3 in	0		TM C	15 GRABS	01	03
MI2083	14 JUL-88	SO	SOIL, ROW 2, SOUTH, 2112 WEST LANE	0-3 in	0		TM C	22 GRABS	01	03
MI2084	14 JUL-88	SO	SOIL, ROW 2, WEST, 2112 WEST LANE	0-3 in	0		TM C	22 GRABS	01	03
MI2085	14 JUL-88	SO	SOIL, ROW 2, NORTH, 2112 WEST LANE	0-3 in	0		TM C	22 GRABS	01	03
MI2086	14 JUL-88	SO	SOIL, ROW 1, WEST, 2203 BRADEN	0-3 in	0		TM C	46 GRABS	01	03
MI2087	14 JUL-88	SO	SOIL, ROW 1, NORTH, 2203 BRADEN	0-3 in	0		TM C	46 GRABS	01	03
MI2088	14 JUL-88	SO	SOIL, ROW 1, SOUTH, 2203 BRADEN	0-3 in	0		TM C	46 GRABS	01	03
MI2089	14 JUL-88	SO	SOIL, ROW 2, NORTH, 2203 BRADEN	0-3 in	0		TM C	35 GRABS	01	03
MI2090	14 JUL-88	SO	SOIL, ROW 2, WEST, 2203 BRADEN	0-3 in	0		TM C	35 GRABS	01	03
MI2091	14 JUL-88	SO	SOIL, ROW 2, SOUTH, 2203 BRADEN	0-3 in	0		TM C	35 GRABS	01	03
MI2092	14 JUL-88	SO	SOIL, ROW 1, WEST, 2202 BRADEN	0-3 in	0	ORIG MI2093	TM C	49 GRABS	01	03
MI2093	14 JUL-88	SO	SOIL, ROW 1, WEST, 2202 BRADEN	0-3 in	0	QBL MI2092	TM C	49 GRABS	01	03
MI2094	14 JUL-88	SO	SOIL, ROW 1, NORTH, 2202 BRADEN	0-3 in	0		TM C	49 GRABS	01	03
MI2095	14 JUL-88	SO	SOIL, ROW 1, WEST, 2202 BRADEN	0-3 in	0	SPLT MI2092	C	49 GRABS	04	03
MI2096	15 JUN-88	SO	SOIL, ROW 1, SOUTH, 2202 BRADEN	0-3 in	0		TM C	49 GRABS	01	03
MI2097	15 JUL-88	SO	SOIL, ROW 2, NORTH, 2202 BRADEN	0-3 in	0		TM C	44 GRABS	01	03
MI2098	15 JUL-88	SO	SOIL, ROW 2, WEST, 2202 BRADEN	0-3 in	0		TM C	44 GRABS	01	03
MI2099	15 JUL-88	SO	SOIL, ROW 2, SOUTH, 2202 BRADEN	0-3 in	0		TM C	44 GRABS	01	03
MI2100	15 JUL-88	SO	SOIL, BLANK		0	QBL	TM C	NA	01	03
MI2101	14 JUL-88	LI	LITRD, HEXANE, EQUIPMENT RINSE			QBL	TM C	2 RINSES	01	03

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2,3,7,8-TCDD

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TABLE A-1
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SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER		REFERENCE QC PARTNER LAB AREAS	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS REQUEST	
					OC	QC			01	03
MR2102	14 JUL 88	L1	L100/D. HEXAME. TRIP BLANK				QBL	TM C	NA	01 03
MR2103	15 JUL 88	S0	SOIL. ROW 1. WEST 618 ALTA COVE	0-3 in			0 ORIG MR2104	TM C	44 GRABS	01 03
MR2104	15 JUL 88	S0	SOIL. ROW 1. WEST 618 ALTA COVE.	0-3 in			0 QDU MR2103	TM C	44 GRABS	01 03
MR2105	15 JUL 88	S0	SOIL. ROW 1. WEST 618 ALTA COVE	0-3 in		EPA SPLIT	0 SPLIT MR2103	C	44 GRABS	04 03
MR2106	15 JUL 88	S0	SOIL. ROW 1. NORTH 618 ALTA COVE.	0-3 in			0	TM C	44 GRABS	01 03
MR2107	15 JUL 88	S0	SOIL. ROW 1. SOUTH 618 ALTA COVE	0-3 in			0	TM C	44 GRABS	01 03
MR2108	15 JUL 88	S0	SOIL. ROW 2. WEST 618 ALTA COVE	0-3 in			0	TM C	40 GRABS	01 03
MR2109	15 JUL 88	S0	SOIL. ROW 2. NORTH 618 ALTA COVE	0-3 in			0	TM C	40 GRABS	01 03
MR2110	15 JUL 88	S0	SOIL. ROW 2. SOUTH 618 ALTA COVE	0-3 in			0	TM C	40 GRABS	01 03
MR2111	15 JUL 88	S0	SOIL. ROW 1. NORTH 620 ALTA COVE.	0-3 in			0	TM C	33 GRABS	01 03
MR2112	15 JUL 88	S0	SOIL. ROW 1. WEST 620 ALTA COVE	0-3 in			0	TM C	33 GRABS	01 03
MR2113	15 JUL 88	S0	SOIL. ROW 1. SOUTH 620 ALTA COVE.	0-3 in			0	TM C	33 GRABS	01 03
MR2114	15 JUL 88	S0	SOIL. ROW 2. WEST 620 ALTA COVE	0-3 in			0	TM C	34 GRABS	03 03
MR2115	15 JUL 88	S0	SOIL. ROW 2. NORTH 620 ALTA COVE	0-3 in			0	TM C	34 GRABS	03
MR2116	15 JUL 88	S0	SOIL. ROW 2. SOUTH 620 ALTA COVE.	0-3 in			0	TM C	34 GRABS	03 03
MR2117	15 JUL 88	L1	L100/D. HEXAME. EQUIPMENT RINSE				0 ORI	TM C	NA	01 03
MR2118	16 JUL 88	S0	SOIL. MOUND OF DIRT AT FENCE CORNER BETWEEN APT. PLAYGROUND & RB. EAST	0-3 in.	1.5			TM C	25 GRABS	01 03
MR2119	16 JUL 88	S0	SOIL. MOUND OF DIRT ON EAST BANK OF ROCKY BRANCH AT MAIN STREET BRIDGE	0-3 in	3.5			TM C	36 GRABS	01 03
MR2120	16 JUL 88	S0	SOIL. SOUTH MANHOLE #2745. 1704 HILL ST	0-3 in	0			TM C	36 GRABS	01 03
MR2121	16 JUL 88	S0	SOIL. WEST MANHOLE #2745. 1704 HILL ST	0-3 in	0			TM C	36 GRABS	01 03
MR2122	16 JUL 88	S0	SOIL. EAST MANHOLE #2745. 1704 HILL ST	0-3 in	0			TM C	36 GRABS	01 03
MR2123	16 JUL 88	S0	SOIL. ROW 1. SOUTH. 1704 HILL ROAD	0-3 in	0			TM C	31 GRABS	01 03
MR2124	16 JUL 88	S0	SOIL. ROW 1. EAST 1704 HILL ROAD	0-3 in	0			TM C	31 GRABS	01 03
MR2125	16 JUL 88	S0	SOIL. ROW 1. NORTH 1704 HILL ROAD	0-3 in	0			TM C	31 GRABS	01 03
MR2126	16 JUL 88	S0	SOIL. ROW 2. SOUTH 1704 HILL ROAD	0-3 in	0			TM C	32 GRABS	01 03

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 Sample Status
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 Analysis Request
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 2,3,7,8-TCDD
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WM2127	16-JUL-88	S0	SOIL, ROW 2, NORTH 1704 HILL ROAD	0-3 in	0	TM C	32 GRABS	01 03
WM2128	16-JUL-88	S0	SOIL, ROW 2, EAST, 1704 HILL ROAD	0-3 in	0	TM C	32 GRABS	01 03
WM2129	16-JUL-88	L1	LIQUID, HEXANE, EQUIPMENT RINSE		0 ORI	TM C	NA	LO 03
WM2130	17-JUL-88	SE	SEDIMENT, NORTH #1 QUAD, LAKE DUPREE	grab	-6	TM I	6 GRABS	01 03
WM2131	17-JUL-88	SE	SEDIMENT, #2 QUAD, LAKE DUPREE	grab	-6	TM I	6 GRABS	01 03
WM2132	17-JUL-88	SE	SEDIMENT, #3 QUAD, LAKE DUPREE	grab	-6	TM I	6 GRABS	01 03
WM2133	17-JUL-88	SE	SEDIMENT, SOUTH #4 QUAD, LAKE DUPREE	grab	-6	TM I	6 GRABS	01 03
WM2134	17-JUL-88	S0	SOIL, PERIMETER OF OXIDATION POND#3	0-3 in	0	TM G	58 GRABS	01 03
WM2135	17-JUL-88	S0	SOIL, AERATION BASIN PERIMETER	0-3 in	0	TM F	83 GRABS	01 03
WM2136	17-JUL-88	L1	LIQUID, HEXANE, EQUIPMENT RINSE		0 ORI	TM F	NA	LO 03
WM2137	18-JUL-88	S0	SOIL, ROW 1, SOUTH 1703 HILL ROAD, EAST ROCKY BRANCH	0-3 in	0	TM C	33 GRABS	01 03
WM2138	18-JUL-88	S0	SOIL, ROW 1, NORTH, 1703 HILL ROAD, EAST ROCKY BRANCH	0-3 in	0	TM C	33 GRABS	01 03
WM2139	18-JUL-88	S0	SOIL, ROW 1, EAST, 1703 HILL ROAD, EAST ROCKY BRANCH	0-3 in	0	TM C	33 GRABS	01 03
WM2140	18-JUL-88	S0	SOIL, ROW 2, NORTH 1703 HILL ROAD, EAST ROCKY BRANCH	0-3 in	0	TM	34 GRABS	03 03
WM2141	18-JUL-88	S0	SOIL, ROW 2, SOUTH, 1703 HILL ROAD, EAST ROCKY BRANCH	0-3 in	0	TM C	34 GRABS	03 03
WM2142	18-JUL-88	S0	SOIL, ROW 2, EAST, 1703 HILL ROAD, EAST ROCKY BRANCH	0-3 in	0	TM C	34 GRABS	03 03
WM2143	18-JUL-88	S0	SOIL, ROW 1, NORTH, 629 BROOKHAVEN COURT, EAST ROCKY BRANCH	0-3 in	0	TM C	13 GRABS	01 03
WM2144	18-JUL-88	S0	SOIL, ROW 1, EAST, 629 BROOKHAVEN COURT, EAST ROCKY BRANCH	0-3 in	0	TM C	13 GRABS	01 03
WM2145	18-JUL-88	S0	SOIL, ROW 2, EAST, 629 BROOKHAVEN COURT, EAST ROCKY BRANCH	0-3 in	0	TM C	16 GRABS	03 03
WM2146	18-JUL-88	S0	SOIL, ROW 1, SOUTH, 629 BROOKHAVEN COURT, EAST ROCKY BRANCH	0-3 in	0	TM C	13 GRABS	01 03
WM2147	18-JUL-88	S0	SOIL, ROW 2, NORTH, 629 BROOKHAVEN COURT, EAST ROCKY BRANCH	0-3 in	0	TM C	16 GRABS	03 03
WM2148	18-JUL-88	S0	SOIL, ROW 2, SOUTH, 629 BROOKHAVEN COURT, EAST ROCKY BRANCH	0-3 in	0	TM C	16 GRABS	03 03
WM2149	18-JUL-88	S0	SOIL, ROW 1, SOUTH, 625 BROOKHAVEN COURT, EAST ROCKY BRANCH	0-3 in	0 ORIG WM2156	TM C	26 GRABS	01 03
WM2150	18-JUL-88	S0	SOIL, ROW 1, NORTH, 625 BROOKHAVEN COURT, EAST ROCKY BRANCH	0-3 in	0	TM C	26 GRABS	01 03
WM2151	18-JUL-88	S0	SOIL, ROW 1, EAST, 625 BROOKHAVEN COURT, EAST ROCKY BRANCH	0-3 in	0 ORIG WM2152A	TM C	26 GRABS	01 03

TABLE KEY

QC - Quality Control

QRI - Rinse

QBL - Blank

ORIG - Original

QDU - Duplicate

SPLT - Split

QDM - Mix Check

LB - Lab

TM - TMS Analytical Services
Indianapolis, INMK - IT Analytical Services
Middlebrook Pike
Knoxville, TN

Sample Status

01 - Rush

02 - Analyze (no rush)

03 - Hold

04 - EPA Split

LO - Sample Lost in Transport

Analysis Request

03 - TCDD;

2,3,7,8-TCDD

04 - Other Analytical Parameters

TABLE A 1
NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER GC	QC PARTNER LB AREAS	REFERENCE UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS REQUEST
MR2152A	18-JUL-88	S0 SOIL	ROW 1, EAST, 625 BROOKHAVEN COURT, EAST ROCKY BRANCH	MIX CK A	0-3 in	0 QDM MR2151	TH C	26 GRABS 01 03
MR2153B	18-JUL-88	S0 SOIL	ROW 1, EAST, 625 BROOKHAVEN COURT, EAST ROCKY BRANCH	MIX CK B	0-3 in	0 QDM MR2151	TH C	26 GRABS 01 03
MR2154C	18-JUL-88	S0 SOIL	ROW 1, EAST, 625 BROOKHAVEN COURT, EAST ROCKY BRANCH	MIX CK C	0-3 in	0 QDM MR2151	TH C	26 GRABS 01 03
MR2155D	18-JUL-88	S0 SOIL	ROW 1, EAST, 625 BROOKHAVEN COURT, EAST ROCKY BRANCH	MIX CK D	0-3 in	0 QDM MR2151	TH C	26 GRABS 01 03
MR2156	18-JUL-88	S0 SOIL	ROW 1, SOUTH, 625 BROOKHAVEN CT, E ROCKY BRANCH	DUPLICATE MR2149	0-3 in	0 QDM MR2149	TH C	26 GRABS 01 03
MR2157	18-JUL-88	S0 SOIL	ROW 1, SOUTH, 625 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0 QDM MR2156	TH C	26 GRABS 01 03
MR2158	18-JUL-88	S0 SOIL	ROW 1, EAST, 625 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0 QDM MR2151	TH C	26 GRABS 01 03
MR2159	18-JUL-88	S0 SOIL	ROW 2, NORTH, 625 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0	TH C	25 GRABS 03 03
MR2160	18-JUL-88	S0 SOIL	ROW 2, EAST, 625 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0	TH C	25 GRABS 03 03
MR2161	18-JUL-88	S0 SOIL	ROW 2, SOUTH, 625 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0	TH C	25 GRABS 03 03
MR2162	18-JUL-88	S0 SOIL	ROW 1, NORTH, 621 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0	TH C	14 GRABS 01 03
MR2163	18-JUL-88	S0 SOIL	ROW 1, EAST, 621 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0	TH C	14 GRABS 01 03
MR2164	18-JUL-88	S0 SOIL	ROW 1, SOUTH, 621 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0	TH C	9 GRABS 01 03
MR2165	18-JUL-88	S0 SOIL	ROW 2, EAST, 621 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0	TH C	9 GRABS 03 03
MR2166	18-JUL-88	S0 SOIL	FIELD BLANK			0 QBL	TH C	NA 01 03
MR2167	18-JUL-88	S0 SOIL	ROW 2, NORTH, 621 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0	TH C	9 GRABS 03 03
MR2168	18-JUL-88	S0 SOIL	ROW 2, SOUTH, 621 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0	TH C	9 GRABS 03 03
MR2169	18-JUL-88	S0 SOIL	ROW 1, EAST, 617 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0	TH C	14 GRABS 01 03
MR2170	18-JUL-88	S0 SOIL	ROW 1, NORTH, 617 BROOKHAVEN COURT, EAST ROCKY BRANCH		0-3 in	0	TH C	14 GRABS 01 03
MR2171	18-JUL-88	L1 LIQUID	HEXANE, EQUIPMENT RINSE			0 QRL	TH C	NA 01 03
MR2172	18-JUL-88	L1 LIQUID	HEXANE, TRIP BLANK			QBL	TH	NA 10 03
MR2173	19-JUL-88	S0 SOIL	ROW 1, SOUTH, 617 BROOKHAVEN COURT		0-3 in	0	TH C	14 GRABS 01 03
MR2174	19-JUL-88	S0 SOIL	ROW 2, NORTH, 617 BROOKHAVEN COURT		0-3 in	0	TH C	14 GRABS 03 03
MR2175	19-JUL-88	S0 SOIL	ROW 2, EAST, 617 BROOKHAVEN COURT		0-3 in	0	TH C	14 GRABS 03 03
MR2176	19-JUL-88	S0 SOIL	ROW 2, SOUTH, 617 BROOKHAVEN COURT		0-3 in	0	TH C	14 GRABS 03 03

TABLE KEY

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ORIG - Original

QDU - Duplicate

SPLT - Split

QDM - Mix Check

LB - Lab

TH - TMS Analytical
Services
Indianapolis, INMK - IT Analytical
Services
Middlebrook Pike
Knoxville, TN

Sample Status

01 - Rush

02 - Analyze (no rush)

03 - Hold

04 - EPA Split

10 - Sample Lost in
Transport

Analysis Request

03 - TCDD;

2,3,7,8-TCDF

04 - Other Anal
Parameters

TABLE A-1
 NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE		REFERENCE	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS	ANALYSIS REQUEST
					WATER	QC				
MZ177	19-JUL-88	SO	SOIL, ROW 1, NORTH 612 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	01	03
MZ178	19-JUL-88	SO	SOIL, ROW 1, SOUTH 612 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	01	03
MZ179	19-JUL-88	SO	SOIL, ROW 1, EAST, 613 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	01	03
MZ180	19-JUL-88	SO	SOIL, ROW 2, SOUTH, 613 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	03	03
MZ181	19-JUL-88	SO	SOIL, ROW 2, EAST, 613 BROOKHAVEN COURT	0-3 in	0		TM	14 GRABS	03	03
MZ182	19-JUL-88	SO	SOIL, ROW 2, NORTH, 613 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	03	03
MZ183	19-JUL-88	SO	SOIL, ROW 1, EAST, 609 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	01	03
MZ184	19-JUL-88	SO	SOIL, ROW 1, NORTH, 609 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	01	03
MZ185	19-JUL-88	SO	SOIL, ROW 1, SOUTH, 609 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	01	03
MZ186	19-JUL-88	SO	SOIL, ROW 2, NORTH, 609 BROOKHAVEN COURT	0-3 in	0		TM C	13 GRABS	03	03
MZ187	19-JUL-88	SO	SOIL, ROW 2, SOUTH, 609 BROOKHAVEN COURT	0-3 in	0		TM C	13 GRABS	03	03
MZ188	19-JUL-88	SO	SOIL, ROW 2, EAST, 609 BROOKHAVEN COURT	0-3 in	0		TM C	13 GRABS	03	03
MZ189	19-JUL-88	SO	SOIL, ROW 1, EAST, 605 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	01	03
MZ190	19-JUL-88	SO	SOIL, ROW 1, NORTH, 605 BROOKHAVEN COURT	0-3 in	0	ORIG MZ191	TM C	14 GRABS	01	03
MZ191	19-JUL-88	SO	SOIL, ROW 1, NORTH, 605 BROOKHAVEN COURT	0-3 in	0	QDU MZ190	TM C	14 GRABS	01	03
MZ192	19-JUL-88	SO	SOIL, ROW 1, NORTH, 605 BROOKHAVEN COURT, EPA SPLIT	0-3 in	0	SPLIT MZ190	C	14 GRABS	04	03
MZ193	19-JUL-88	SO	SOIL, ROW 1, SOUTH 605 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	01	03
MZ194	19-JUL-88	SO	SOIL, ROW 2, NORTH, 605 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	03	03
MZ195	19-JUL-88	SO	SOIL, ROW 2, EAST, 605 BROOKHAVEN COURT	0-1 in	0		TM C	14 GRABS	03	03
MZ196	19-JUL-88	SO	SOIL, ROW 2, SOUTH, 605 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	03	03
MZ197	19-JUL-88	SO	SOIL, ROW 1, EAST, 601 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	01	03
MZ198	19-JUL-88	SO	SOIL, ROW 1, SOUTH 601 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	01	03
MZ199	19-JUL-88	SO	SOIL, ROW 1, NORTH 601 BROOKHAVEN COURT	0-3 in	0		TM C	14 GRABS	01	03
MZ200	19-JUL-88	SO	SOIL, ROW 2, EAST 601 BROOKHAVEN COURT	0-3 in	0		TM C	12 GRABS	03	03
MZ201	19-JUL-88	SO	SOIL, ROW 2, NORTH 601 BROOKHAVEN COURT	0-3 in	0		TM C	12 GRABS	03	03

TABLE KEY

QC - Quality Control

QRI - Rinse

QBL - Blank

ORIG - Original

QDU - Duplicate

SPLT - Split

QDM - Mix Check

LB - Lab.

TM - TMS Analytical
 Services
 Indianapolis, IN

MK - IT Analytical
 Services
 Middlebrook Pike
 Knoxville, TN

Sample Status

01 - Rush

02 - Analyze (no rush)

03 - Hold

04 - EPA Split

Analysis Request

03 - TCDD;

2,3,7,8-TCDD

04 - Other Analytical

Parameters

TABLE A-1
NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER	QC PARTNER	REFERENCE LB AREAS	UNITS IN COMPOSITE	SAMPLE STATUS	ANALYSIS REQUEST	
WH2202	19-JUL-88	SO	SOIL, ROW 2, SOUTH 601 BROOKHAVEN ROAD	0-3 in	0		TH C	12 GRABS	03	03	
WH2203	19-JUL-88	LI	LIQUID, HEXANE EQUIPMENT RINSE		0 OBL		TH C	NA	01	03	
WH2204	19-JUL-88	SO	SOIL BLANK		0 OBL		TH C	NA	01	03	
WH2205	19-JUL-88	LI	LIQUID, HEXANE, TRIP BLANK		0 OBL		TH C	NA	01	03	
WH2206	21-JUL-88	SE	SLUDGE, WEST END OF NORTH OXIDATION POND, TOP SEDIMENT/SLUDGE	0-4 in	-3.5		TH G1	4 GRABS	01	03	
WH2206P	21-JUL-88	SE	SLUDGE, WEST END OF NORTH OXIDATION POND, TOP SEDIMENT/SLUDGE	0-4 in	-3.5		MK G1	4 GRABS	02	04	
WH2207	21-JUL-88	CO	SLUDGE, WEST END OF NORTH OXIDATION POND, INTERFACE	0-3 in	-5		TH G1	4 CORINGS	01	03	
WH2208	21-JUL-88	SE	SLUDGE, EAST END OF NORTH OXIDATION POND, TOP SEDIMENT/SLUDGE	0-4 in	-3.5		TH G1	4 GRABS	01	03	
WH2208P	21-JUL-88	SE	SLUDGE, EAST END OF NORTH OXIDATION POND, TOP SEDIMENT/SLUDGE	0-4 in	-3.5		MK G1	4 GRABS	02	04	
WH2209	21-JUL-88	CO	SLUDGE, EAST HALF OF NORTH OXIDATION POND, INTERFACE	0-3 in	-5 ORIG	WH2210	TH G1	4 CORINGS	01	03	
WH2210	21-JUL-88	CO	SLUDGE, EAST HALF OF NORTH OXIDATION POND, INTERFACE	0-3 in	-5 QDU	WH2209	TH G1	4 CORINGS	01	03	
WH2211	21-JUL-88	CO	SLUDGE, EAST HALF OF NORTH OXIDATION POND, INTERFACE, EPA SPLIT	0-3 in	-5 SPLIT	WH2209	G1	4 CORINGS	04	03	
WH2212	21-JUL-88	CO	SLUDGE, WEST END OF SOUTH OXIDATION POND, INTERFACE	0-3 in	-5		TH G2	4 CORINGS	01	03	
WH2213	21-JUL-88	SE	SLUDGE, WEST END OF SOUTH OXIDATION POND, TOP SEDIMENT/SLUDGE	0-4 in	-3.5		TH G2	4 GRABS	01	03	
WH2213P	21-JUL-88	SE	SLUDGE, WEST END OF SOUTH OXIDATION POND, TOP SEDIMENT/SLUDGE	0-4 in	-3.5		MK G2	4 GRABS	02	04	
WH2214	21-JUL-88	CO	SLUDGE, EAST END OF SOUTH OXIDATION POND, INTERFACE	0-3 in	-5		TH G2	4 CORINGS	01	03	
WH2215	21-JUL-88	SE	SLUDGE, EAST END OF SOUTH OXIDATION POND, TOP SEDIMENT/SLUDGE	0-4 in	-3.5		TH G2	4 GRABS	01	03	
WH2215P	21-JUL-88	SE	SLUDGE, EAST END OF SOUTH OXIDATION POND, TOP SEDIMENT/SLUDGE	0-4 in	-3.5		MK G2	4 GRABS	02	04	
WH2220	22-JUL-88	SE	SLUDGE, NORTH QUADRANT OF AERATION BASIN, TOP SEDIMENT/SLUDGE	0-2 in	-12		TH F	6 GRABS	01	03	
WH2220P	22-JUL-88	SE	SLUDGE, NORTH QUADRANT OF AERATION BASIN, TOP SEDIMENT/SLUDGE	0-2 in	-12		MK F	6 GRABS	02	04	
WH2221	22-JUL-88	SE	SLUDGE, NORTH-EAST QUADRANT AERATION BASIN, TOP SEDIMENT/SLUDGE	0-2 in	-12		TH F	6 GRABS	01	03	
WH2221P	22-JUL-88	SE	SLUDGE, NORTH-EAST QUADRANT AERATION BASIN, TOP SEDIMENT/SLUDGE	0-2 in	-12		MK F	6 GRABS	02	04	
WH2222	22-JUL-88	SE	SLUDGE, SOUTH QUADRANT AERATION BASIN, TOP SEDIMENT/SLUDGE	0-2 in	-12	ORIG	WH2226	TH F	6 GRABS	01	03
WH2222P	22-JUL-88	SE	SLUDGE, SOUTH QUADRANT AERATION BASIN, TOP SEDIMENT/SLUDGE	0-2 in	-12	ORIG	WH2226	MK F	6 GRABS	02	04
WH2223	22-JUL-88	SE	SLUDGE, SOUTH QUADRANT AERATION BASIN, TOP SEDIMENT/SLUDGE, EPA SPLIT	0-2 in	-12	SPLIT	WH2222	F	6 GRABS	04	03

TABLE KEY

- QC - Quality Control
- QRI - Rinse
- OBL - Blank
- ORIG - Original
- QDU - Duplicate
- SPLIT - Split
- QDM - Mix Check
- LB - Lab
- TH - TMS Analytical Services Indianapolis, IN
- MK - IT Analytical Services Middlebrook Pike Knoxville, TN
- Sample Status
- 01 - Rush
- 02 - Analyze (no rush)
- 03 - Hold
- 04 - EPA Split
- Analysis Request
- 03 - TCDD;
- 2,3,7,8-TCDD
- 04 - Other Analytical Parameters

A-16

TABLE A-1
NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TUBE	FEET ABOVE WATER		REFERENCE PARTNER LB AREAS	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS REQUEST	
					QC	QC			STATUS	REQUEST
MR2224	22-JUL-88	SE	SLUDGE, SOUTH-WEST QUADRANT AERATION BASIN, TOP SEDIMENT/SLUDGE	0-2 in	-12		TM F	6 GRABS	01	03
MR2224F	22-JUL-88	SE	SLUDGE, SOUTH-WEST QUADRANT AERATION BASIN, TOP SEDIMENT/SLUDGE	0-2 in	-12		MR F	6 GRABS	02	04
MR2226	22-JUL-88	SE	SLUDGE, SOUTH QUADRANT AERATION BASIN, TOP SEDIMENT/SLUDGE	0-2 in	-12	QDU	MR2222 TM F	6 GRABS	01	03
MR2227	22 JUL 88	CO	SLUDGE, NORTH QUADRANT AERATION POND, INTERFACE	0-1 in	-15		TM F	6 CORINGS	01	03
MR2228	22-JUL-88	CO	SLUDGE, NORTH-EAST QUADRANT, AERATION BASIN, INTERFACE	0-1 in	-15		TM F	6 CORINGS	01	03
MR2229	22-JUL-88	CO	SLUDGE, SOUTH QUADRANT AERATION BASIN, INTERFACE	0-1 in	-15	ORIG	MR2230 TM F	6 CORINGS	01	03
MR2230	22-JUL-88	CO	SLUDGE, SOUTH QUADRANT AERATION BASIN, INTERFACE	0-1 in	-15	QDU	MR2229 TM F	6 CORINGS	01	03
MR2231	22-JUL-88	CO	SLUDGE, SOUTH QUADRANT AERATION BASIN, INTERFACE, EPA SPLIT	0-1 in	-15	SPLT	MR2229 F	6 CORINGS	04	03
MR2232	22-JUL-88	CO	SLUDGE, SOUTH-WEST QUADRANT AERATION BASIN, INTERFACE	0-1 in	-15		TM F	6 CORINGS	01	03
MR2233	23-JUL-88	SO	SOIL, EAST, 1000-1150 FT. E. ROCKY BR RESAMPLE, ROW 1, EXCEPT DIRT PILE	0-3 in	0		TM C	43 GRABS	01	03
MR2234	23 JUL 88	SO	SOIL, EAST, 1000-ROAD, E ROCKY BR RESAMPLE, ROW 1, EXCEPT DIRT PILE	0-3 in	0		TM C	35 GRABS	01	03
MR2235	23-JUL-88	SO	SOIL, EAST, ROAD-1150 FEET, EAST ROCKY BRANCH RESAMPLE, ROW 1	0-3 in	0		TM C	8 GRABS	01	03
MR2236	23-JUL-88	SO	SOIL, WEST, MARHOLE NUMBER 2735 AT 617 OAKLEY	0-3 in	0		TM C	35 GRABS	01	03
MR2237	23-JUL-88	SO	SOIL, NORTH, MARHOLE NUMBER 2735 AT 617 OAKLEY	0-3 in	0		TM C	35 GRABS	01	03
MR2238	23-JUL-88	SO	SOIL, SOUTH, MARHOLE NUMBER 2735 AT 617 OAKLEY	0-3 in	0		TM C	35 GRABS	01	03
MR2239	23-JUL-88	SO	SOIL, SOUTH, MARHOLE NUMBER 2735 AT 617 OAKLEY, EPA SPLIT	0-3 in	0	SPLT	MR2238 C	35 GRABS	04	03
MR2240	23-JUL-88	LI	LIQUID, HEXANE, EQUIPMENT RINSE		0	ORI	TM C	2 RINSES	01	03
MR2240F	23-JUL-88	LI	LIQUID, HEXANE, EQUIPMENT RINSE, VERIFICATION ANALYSIS OF MR2240		0	ORI	TM C	2 RINSES	01	03
MR2241	23-JUL-88	SO	SOIL 2510-2940 FT E ROCKY BRANCH, RESAMPLE, 6 IN LEVEL, RIGHT BANK	0-3 in	5		TM A	30 GRABS	01	03
MR2242	23-JUL-88	SO	SOIL, VACANT LOT AT PARKING AREA NEXT TO GATE BETWEEN 3010 & 3018 HIMES	0-3 in	0		TM D	NA	01	03
MR2243	23-JUL-88	SO	SOIL, FIELD BEHIND CHURCH ON BRADEN STREET	0-3 in	0		TM D	NA	01	03
MR2244	25-JUL-88	SO	SOIL, 604 BROOKHAVEN COURT, MIDDLE OF FENCE BETWEEN FENCE & POOL	0-3 in	0		TM D	NA	01	03
MR2245	25-JUL-88	SO	SOIL, 604 CHERYL, MIDDLE OF FENCE, ACROSS BACKYARD	0-3 in	0		TM D	NA	01	03
MR2246	25-JUL-88	SO	SOIL, 2200 BRADEN, 4" NORTH SIDE OF TELEPHONE POLE ON CORNER	0-3 in	0		TM D	NA	01	03
MR2247	25-JUL-88	SO	SOIL, 2111 BRADEN, BETWEEN PLANTS & HOUSE, 4 FT ON WEST SIDE	0-3 in	0		TM D	NA	01	03

TABLE KEY

QC - Quality Control

QR1 - Rinse

QBL - Blank

ORIG - Original

QDU - Duplicate

SPLT - Split

QDM - Mix Check

LB - Lab

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Services

Indianapolis, IN

MR - IT Analytical

Services

Middlebrook Pike

Knoxville, TN

Sample Status

01 - Rush

02 - Analyze (no rush)

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04 - EPA Split

Analysis Request

03 - TCDD;

2,3,7,8-TCDD

04 - Other Analytical

Parameters

TABLE A-1
 NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE		REFERENCE	UNITS IN COMPOSITE	SAMPLE ANALYSIS	
					WATER	QC PARTNER			LAB AREAS	STATUS
HR2248	25 JUL 88	SO	SOIL, 2111 BRADEN, BETWEEN PLANTS & HOUSE 4 FT ON WEST SIDE, EPA SPLIT	0-3 in	0	SPLT HR2247	D	NA	04	03
HR2249	24-JUL-88	SO	SOIL, ROW 3, NORTH, 0-250 FT WEST ROCKY BRANCH	0-3 in	0		TH C	50 GRABS	01	03
HR2250	24-JUL-88	SO	SOIL, ROW 3, WEST, 0-250 FT WEST ROCKY BRANCH	0-3 in	0		TH C	50 GRABS	01	03
HR2251	24-JUL-88	SO	SOIL, ROW 3, WEST, 0-250 FT WEST ROCKY BRANCH, EPA SPLIT	0-3 in	0	SPLT HR2250	C	50 GRABS	04	03
HR2252	24-JUL-88	SO	SOIL, ROW 3, SOUTH, 0-250 FT WEST ROCKY BRANCH	0-3 in	0		TH C	50 GRABS	01	03
HR2253	24-JUL-88	SO	SOIL, ROW 4, WEST, 0-250 FT WEST ROCKY BRANCH	0-3 in	0		TH C	50 GRABS	03	03
HR2254	24-JUL-88	SO	SOIL, ROW 4, NORTH, 0-250 FT WEST ROCKY BRANCH	0-3 in	0		TH C	50 GRABS	03	03
HR2255	24-JUL-88	SO	SOIL, ROW 4, SOUTH, 0-250 FT WEST ROCKY BRANCH	0-3 in	0		TH C	50 GRABS	03	03
HR2256	24-JUL-88	LI	LIQUID, HEXANE EQUIPMENT RINSE		0	ORI	TH C	2 RINSES	01	03
HR2257	24-JUL-88	SO	SOIL, ROW 3, NORTH, 250-500 FT WEST ROCKY BRANCH	0-3 in	0		TH C	50 GRABS	01	03
HR2258	24-JUL-88	SO	SOIL, ROW 3, SOUTH, 250-500 FT WEST ROCKY BRANCH	0-3 in	0		TH C	50 GRABS	01	03
HR2259	25 JUL 88	SO	SOIL, ROW 3, WEST, 250-500 FT WEST ROCKY BRANCH	0-3 in	0		TH C	50 GRABS	01	03
HR2260	25-JUL-88	SO	SOIL, ROW 4, NORTH, 250-500 FT WEST ROCKY BRANCH	0-3 in	0		TH C	50 GRABS	01	03
HR2261	25-JUL-88	SO	SOIL, ROW 4, SOUTH, 250-500 FT WEST ROCKY BRANCH	0-3 in	0		TH C	50 GRABS	01	03
HR2262	25 JUL 88	SO	SOIL, ROW 4, WEST, 250-500 FT WEST ROCKY BRANCH	0-3 in	0		TH C	50 GRABS	01	03
HR2263	25-JUL-88	SO	SOIL, ROW 3, WEST, 500-750 FT WEST ROCKY BRANCH	0-3 in	0		TH C	48 GRABS	01	03
HR2264	25-JUL-88	SO	SOIL, ROW 3, NORTH, 500-750 FT WEST ROCKY BRANCH	0-3 in	0		TH C	48 GRABS	01	03
HR2265	25 JUL 88	SO	SOIL, ROW 3, WEST, 500-750 FT WEST ROCKY BRANCH, EPA SPLIT	0-3 in	0	SPLT HR2263	C	48 GRABS	04	03
HR2266	24-JUL-88	SO	SOIL, BLANK		0	ORL	TH C	NA	01	03
HR2267	25-JUL-88	SO	SOIL, ROW 3, SOUTH, 500-750 FT WEST ROCKY BRANCH	0-3 in	0		TH C	48 GRABS	01	03
HR2268	25-JUL-88	SO	SOIL, ROW 4, NORTH, 500-750 FT WEST ROCKY BRANCH	0-3 in	0		TH C	44 GRABS	02	03
HR2269	25-JUL-88	SO	SOIL, ROW 4, WEST, 500-750 FT WEST ROCKY BRANCH	0-3 in	0		TH C	44 GRABS	03	03
HR2270	25 JUL 88	SO	SOIL, ROW 4, SOUTH, 500-750 FT WEST ROCKY BRANCH	0-3 in	0		TH C	44 GRABS	03	03
HR2271	25 JUL 88	SO	SOIL, ROW 3, WEST, 750-930 FT WEST ROCKY BRANCH	0-3 in	0		TH C	30 GRABS	01	03
HR2272	25 JUL 88	SO	SOIL, ROW 3, NORTH, 750-930 FT WEST ROCKY BRANCH	0-3 in	0		TH C	30 GRABS	01	03

TABLE KEY

- QC - Quality Control
- ORI - Rinse
- ORL - Blank
- ORIG - Original
- QDU - Duplicate
- SPLIT - Split
- QDM - Mix Check
- LB - Lab
- TM - TMS Analytical Services Indianapolis, IN
- MR - IT Analytical Services Middlebrook Pike Knoxville, TN
- Sample Status
- 01 - Rush
- 02 - Analyze (no rush)
- 03 - Hold
- 04 - EPA Split
- Analysis Request
- 03 - TCDD;
- 2,3,7,8-TCDD
- 04 - Other Analytical Parameters

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TABLE A-1
NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER		QC PARTNER	REFERENCE	UNITS IN COMPOSITE	SAMPLE ANALYSIS	
					QC	LB AREAS				STATUS	REQUEST
W12273	25-JUL-88	SO	SOIL, ROW 3, SOUTH, 750-930 FT WEST ROCKY BRANCH	0-3 in	0		TM C	30 GRABS	01	03	
W12274	25-JUL-88	SO	SOIL, ROW 4, NORTH, 750-930 FT WEST ROCKY BRANCH	0-3 in	0		TM C	33 GRABS	03	03	
W12275	25-JUL-88	SO	SOIL, ROW 4, SOUTH, 750-930 FT WEST ROCKY BRANCH	0-3 in	0		TM C	33 GRABS	03	03	
W12276	25-JUL-88	SO	SOIL, ROW 4, WEST, 750-930 FT WEST ROCKY BRANCH	0-3 in	0		TM C	33 GRABS	03	03	TABLE KEY
W12277	25-JUL-88	SO	SOIL, ROW 3, NORTH, 2112 WEST LANE	0-3 in	0		TM C	32 GRABS	01	03	QC - Quality Control
W12278	25-JUL-88	SO	SOIL, ROW 3, SOUTH, 2112 WEST LANE	0-3 in	0		TM C	32 GRABS	01	03	QRI - Rinse
W12279	25-JUL-88	SO	SOIL, ROW 3, SOUTH, 2112 WEST LANE, EPA SPLIT	0-3 in	0	SPLIT W12278	C	32 GRABS	04	03	QBL - Blank
W12280	25-JUL-88	LI	L10W1D, HEXANE, EQUIPMENT RINSE		0	QRI	TM C	2 RINSES	01	03	ORIG - Original
W12281	25-JUL-88	LI	L10W1D, HEXANE, TRIP BLANK		0	QBL	TM C	NA	01	03	QDU - Duplicate
W12282	25-JUL-88	SO	SOIL, ROW 3, WEST, 2112 WEST LANE	0-3 in	0		TM C	32 GRABS	01	03	SPLIT - Split
W12283	25-JUL-88	SO	SOIL, ROW 4, NORTH, 2112 WEST LANE	0-3 in	0		TM C	33 GRABS	03	03	ODM - Mix Check
W12284	26-JUL-88	SO	SOIL, ROW 4, SOUTH, 2112 WEST LANE, WEST ROCKY BRANCH	0-3 in	0		TM C	33 GRABS	01	03	1.B - Lab
W12285	26-JUL-88	SO	SOIL, ROW 4, WEST, 2112 WEST LANE, WEST ROCKY BRANCH	0-3 in	0		TM C	33 GRABS	03	03	TM - TMS Analytical Services Indianapolis, IN
W12286	26-JUL-88	SO	SOIL, ROW 3, SOUTH, 2203 BRADEN	0-3 in	0		TM C	27 GRABS	01	03	MK - IT Analytical Services Middlebrook Pike Knoxville, TN
W12287	26-JUL-88	SO	SOIL, ROW 3, NORTH, 2203 BRADEN	0-3 in	0		TM C	27 GRABS	01	03	Sample Status
W12288	26-JUL-88	SO	SOIL, ROW 3, NORTH, 2203 BRADEN, EPA SPLIT	0-3 in	0	SPLIT W12287	C	27 GRABS	04	03	01 - Rush
W12289	26-JUL-88	SO	SOIL, ROW 3, WEST, 2203 BRADEN	0-3 in	0		TM C	27 GRABS	01	03	02 - Analyze (no rush)
W12290	26-JUL-88	SO	SOIL, ROW 4, WEST, 2203 BRADEN	0-3 in	0		TM C	24 GRABS	01	03	03 - Hold
W12291	26-JUL-88	SO	SOIL, ROW 4, SOUTH, 2203 BRADEN	0-3 in	0		TM C	24 GRABS	01	03	04 - EPA Split
W12292	26-JUL-88	SO	SOIL, ROW 4, NORTH, 2203 BRADEN	0-3 in	0		TM C	24 GRABS	01	03	Analysis Request
W12293	26-JUL-88	SO	SOIL, ROW 3, SOUTH, 2202 BRADEN	0-3 in	0		TM C	36 GRABS	01	03	03 - TCDD;
W12294	26-JUL-88	SO	SOIL, ROW 3, WEST, 2202 BRADEN	0-3 in	0		TM C	36 GRABS	01	03	2,3,7,8-TCDD
W12295	26-JUL-88	SO	SOIL, ROW 3, NORTH, 2202 BRADEN	0-3 in	0		TM C	36 GRABS	01	03	04 - Other Analytical Parameters
W12296	26-JUL-88	SO	SOIL, ROW 4, SOUTH, 2202 BRADEN	0-3 in	0		TM C	32 GRABS	03	03	
W12297	26-JUL-88	SO	SOIL, ROW 4, WEST, 2202 BRADEN	0-3 in	0		TM C	32 GRABS	03	03	

TABLE A-1
 NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER	QC	PARTNER	LAB AREAS	REFERENCE	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS REQUEST	
											OC	QC
W02296	26 JUL 88	S0	SOIL, ROW 4, NORTH, 2292 BRADEN.	0-3 in	0				TM C	12 GRABS	03	03
W02299	26 JUL 88	S0	SOIL, ROW 3, NORTH, 618 ALTA COVE	0-3 in.	0				TM C	35 GRABS	03	03
W02300	26 JUL 88	S0	SOIL, ROW 3, SOUTH, 618 ALTA COVE.	0-3 in	0				TM C	35 GRABS	03	03
W02301	26 JUL 88	S0	SOIL, ROW 3, WEST, 618 ALTA COVE	0-3 in	0				TM C	35 GRABS	03	03
W02302	26 JUL 88	S0	SOIL, ROW 4, WEST, 618 ALTA COVE.	0-3 in	0				TM C	35 GRABS	03	03
W02303	26 JUL 88	S0	SOIL, ROW 4, NORTH, 618 ALTA COVE	0-3 in	0				TM C	35 GRABS	03	03
W02304	26 JUL 88	S0	SOIL, ROW 3, SOUTH, 618 ALTA COVE.	0-3 in	0				TM C	35 GRABS	03	03
W02305	26 JUL 88	S0	SOIL, ROW 3, NORTH, 1704 HILL ROAD	0-3 in	0				TM C	28 GRABS	01	03
W02306	26 JUL 88	S0	SOIL, ROW 3, SOUTH, 1704 HILL ROAD	0-3 in	0				TM C	28 GRABS	01	03
W02307	26 JUL 88	S0	SOIL, ROW 3, EAST, 1704 HILL ROAD	0-3 in	0				TM C	28 GRABS	01	03
W02308	26 JUL 88	S0	SOIL, ROW 4, EAST, 1704 HILL ROAD.	0-3 in.	0				TM C	28 GRABS	01	03
W02309	26 JUL 88	S0	SOIL, ROW 4, NORTH, 1704 HILL ROAD.	0-3 in.	0				TM C	28 GRABS	01	03
W02310	26 JUL 88	S0	SOIL, ROW 4, SOUTH, 1704 HILL ROAD	0-3 in	0				TM C	28 GRABS	01	03
W02311	26 JUL 88	S0	SOIL, WEST MARKERS, SOUTH OF DITCH, MANHOLE #2745, 1704 HILL ROAD	0-3 in	0				TM C	25 GRABS	01	03
W02312	26 JUL 88	S0	SOIL, EAST MARKERS, SOUTH OF DITCH, MANHOLE #2745, 1704 HILL ROAD	0-3 in	0				TM C	25 GRABS	01	03
W02313	26 JUL 88	S0	SOIL, NORTH MARKERS, SOUTH OF DITCH, MANHOLE #2745, 1704 HILL ROAD	0-3 in	0				TM C	28 GRABS	01	03
W02314	26 JUL 88	S0	SOIL, SOUTH MARKER, NORTH OF DITCH, MANHOLE #2745, 1704 HILL ROAD	0-3 in	0	ORIG	W02316		TM C	40 GRABS	01	03
W02315	26 JUL 88	S0	SOIL, SOUTH MARKER, NORTH OF DITCH, MANHOLE #2745, 1704 HILL, EPA SPLIT	0-3 in	0	SPLIT	W02314		C	40 GRABS	04	03
W02316	26 JUL 88	S0	SOIL, SOUTH MARKER, NORTH OF DITCH, MANHOLE #2745, 1704 HILL ROAD	0-3 in	0	ODU	W02314		TM C	40 GRABS	01	03
W02317	26 JUL 88	S0	SOIL, EAST MARKERS, NORTH OF DITCH, MANHOLE #2745, 1704 HILL ROAD	0-3 in	0				TM C	40 GRABS	01	03
W02318	26 JUL 88	S0	SOIL, WEST MARKERS, NORTH OF DITCH, MANHOLE #2745, 1704 HILL ROAD	0-3 in	0				TM C	40 GRABS	01	03
W02319	26 JUL 88	L1	LIQUID, HEXANE, EQUIPMENT RINSE.		0	QRI			TM C	NA	01	03
W02320	26 JUL 88	L1	LIQUID, HEXANE, TRIP BLANK		0	QBL			TM C	NA	01	03
W02321	18 AUG 88	S0	SOIL, ROW 1, WEST, 1704 HILL ROAD, REVISED EAST ROCKY BRANCH	0-3 in	0	ORIG	W02324		TM C	21 GRABS	01	03
W02322	18 AUG 88	S0	SOIL, ROW 1, SOUTH, 1704 HILL ROAD, REVISED EAST ROCKY BRANCH	0-3 in	0				TM C	21 GRABS	01	03

TABLE KEY

QC - Quality Control

QRI - Rinse

QBL - Blank

ORIG - Original

ODU - Duplicate

SPLIT - Split

QDM - Mix Check

I.B - Lab

TM - TMS Analytical Services Indianapolis, IN

MX - IT Analytical Services Middlebrook Pike Knoxville, TN

Sample Status

01 - Rush

02 - Analyze (no rush)

03 - Hold

04 - EPA Split

Analysis Request

03 - TCDD;

2,3,7,8-TCDD

04 - Other Analytical Parameters

TABLE A-1
NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SWMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER		REFERENCE	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS	ANALYSIS REQUEST
					QC	QC PARTNER LB AREAS				
WR2323	10-AUG-88	SO	SOIL ROW 1, WEST 1704 HILL ROAD, REVISED	0-3 in	0	SPLIT	WR2321	C	21 GRABS	04 03
WR2324	10-AUG-88	SO	SOIL ROW 1, WEST 1704 HILL ROAD, REVISED	0-3 in	0	QDU	WR2321	TM C	21 GRABS	01 03
WR2325	10-AUG-88	SO	SOIL ROW 1 NORTH, 1704 HILL ROAD, REVISED	0-3 in	0			TM C	21 GRABS	01 03
WR2326	10-AUG-88	SO	SOIL, ROW 2, WEST 1704 HILL ROAD, REVISED	0-3 in	0			TM C	21 GRABS	01 03
WR2327	10-AUG-88	SO	SOIL, ROW 2, NORTH 1704 HILL ROAD, REVISED	0-3 in	0			TM C	21 GRABS	01 03
WR2328	10-AUG-88	SO	SOIL, ROW 2, SOUTH, 1704 HILL ROAD, REVISED	0-3 in	0			TM C	21 GRABS	01 03
WR2329	10-AUG-88	SO	SOIL SOUTH, 1704 HILL RD., MANHOLE #2745 DITCH, REVISED	0-3 in	0	ORIG	WR2332	TM C	32 GRABS	01 03
WR2330	10-AUG-88	SO	SOIL, EAST 1704 HILL ST., MANHOLE #2745 DITCH, REVISED	0-3 in	0			TM C	32 GRABS	01 03
WR2331	10-AUG-88	SO	SOIL, SOUTH, 1704 HILL RD., MANHOLE #2745 DITCH, EPA SPLIT, REVISED	0-3 in	0	SPLIT	WR2329	C	36 GRABS	04 03
WR2332	10-AUG-88	SO	SOIL, SOUTH, 1704 HILL RD., MANHOLE #2745 DITCH, REVISED	0-3 in	0	QDU	WR2329	TM C	36 GRABS	01 03
WR2333	10-AUG-88	SO	SOIL, NORTH, 1704 HILL RD., MANHOLE #2745 DITCH, REVISED	0-3 in	0			TM C	32 GRABS	01 03
WR2334	10-AUG-88	SO	SOIL, NORTH, 1704 HILL RD. NORTH OF DITCH, EAST ROCKY BRANCH	0-3 in	0			TM C	24 GRABS	01 03
WR2335	10-AUG-88	SO	SOIL, NORTH, 1704 HILL RD. NORTH OF DITCH, EPA SPLIT	0-3 in	0	SPLIT	WR2334	C	24 GRABS	04 03
WR2336	10-AUG-88	SO	SOIL, SOUTH, 1704 HILL RD. NORTH OF DITCH, EAST ROCKY BRANCH	0-3 in	0			TM C	24 GRABS	01 03
WR2337	10-AUG-88	SO	SOIL, WEST, 1704 HILL RD., NORTH OF DITCH, EAST ROCKY BRANCH	0-3 in	0			TM C	24 GRABS	01 03
WR2338	10-AUG-88	LI	LIQUID, HEXANE, EQUIPMENT RINSE		0	QRI		TM C	NA	01 03
WR2339	10-AUG-88	LI	LIQUID, HEXANE, TRIP BLANK		0	QBL		TM C	NA	01 03
WR2340	11-AUG-88	SE	SEDIMENT BAYOU NETO AT STP OUTFALL	0-1 in	0	ORIG	WR2341	TM G3	10 GRABS	01 03
WR2341	11-AUG-88	SE	SEDIMENT BAYOU NETO AT STP OUTFALL	0-1 in	0	QDU	WR2340	TM G3	10 GRABS	01 03
WR2342	11-AUG-88	SE	SEDIMENT, BAYOU NETO AT STP OUTFALL, EPA SPLIT	0-1 in	0	SPLIT	WR2341	TM G3	10 GRABS	04 03
WR2343	11-AUG-88	SO	SOIL, BAYOU NETO STP OUTFALL, 60 IN. RIGHT BANK	0-3 in	0			TM G3	26 GRABS	01 03
WR2344	11-AUG-88	SO	SOIL, BAYOU NETO AT STP OUTFALL, 36 IN. RIGHT BANK	0-3 in	0			TM G3	26 GRABS	01 03
WR2345	11-AUG-88	SO	SOIL, BAYOU NETO AT STP OUTFALL, 6 IN. RIGHT BANK	0-3 in	0	ORIG	WR2347	TM G3	26 GRABS	01 03
WR2346	11-AUG-88	SO	SOIL, BAYOU NETO AT STP OUTFALL, 6 IN. RIGHT BANK, EPA SPLIT	0-3 in	0	SPLIT	WR2345	G3	26 GRABS	04 03
WR2347	11-AUG-88	SO	SOIL, BAYOU NETO AT STP OUTFALL, 6 IN. RIGHT BANK	0-3 in	0	QDU	WR2345	TM G3	26 GRABS	01 03

TABLE KEY

QC - Quality Control

QRI - Rinse

QBL - Blank

ORIG - Original

QDU - Duplicate

SPLIT - Split

QDM - Mix Check

LB - Lab

TM - TMS Analytical

Services

Indianapolis, IN

NK - IT Analytical

Services

Middlebrook Pike

Knoxville, TN

Sample Status

01 - Rush

02 - Analyze (no rush)

03 - Hold

04 - EPA Split

Analysis Request

03 - TCDB;

2,3,7,8-TCDD

04 - Other Analytical

Parameters

TABLE A-1
 NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE				REFERENCE	UNITS IN COMPOSITE	SAMPLE ANALYSIS	
					WATER	OC	OC PARTNER	LB AREAS			STATUS	REQUEST
WR2348	11-AUG-88	S0	SOIL, BAYOU METO AT STP OUTFALL, 60 IN LEFT BANK	0-3 in	0			TM G3	26 GRABS	01	03	
WR2349	11-AUG-88	S0	SOIL, BAYOU METO AT STP OUTFALL, 36 IN, LEFT BANK	0-3 in	0	ORIG	WR2351	TM G3	26 GRABS	01	03	
WR2350	11-AUG-88	S0	SOIL, BAYOU METO AT STP OUTFALL, 36 IN, LEFT BANK, EPA SPLIT	0-3 in	0	SPLT	WR2349	G3	26 GRABS	04	03	
WR2351	11-AUG-88	S0	SOIL, BAYOU METO AT STP OUTFALL, 36 IN, LEFT BANK	0-3 in	0	ODU	WR2349	TM G3	26 GRABS	01	03	
WR2352	11-AUG-88	S0	SOIL, BAYOU METO AT STP OUTFALL, 6 IN LEFT BANK	0-3 in	0			TM G3	26 GRABS	01	03	
WR2353	11-AUG-88	S0	SOIL, SOUTHWEST, 1704 HILL ROAD, NORTH OF POOL	0-3 in	0			TM C	36 GRABS	01	03	
WR2354	11-AUG-88	S0	SOIL, NORTHEAST, 1704 HILL ROAD, NORTH OF POOL	0-3 in	0			TM C	36 GRABS	01	03	
WR2355	11-AUG-88	S0	SOIL, NORTHWEST, 1704 HILL ROAD, NORTH OF POOL	0-3 in	0	ORIG	WR2357	TM C	36 GRABS	01	03	
WR2356	11-AUG-88	S0	SOIL, NORTHWEST, 1704 HILL ROAD, NORTH OF POOL, EPA SPLIT	0-3 in	0	SPLT	WR2355	C	36 GRABS	04	03	
WR2357	11-AUG-88	S0	SOIL, NORTHWEST, 1704 HILL ROAD, NORTH OF POOL	0-3 in	0	ODU	WR2355	TM C	36 GRABS	01	03	
WR2358	11-AUG-88	S0	SOIL, EAST, 1712 HILL ROAD, MANHOLE NUMBER 2741	0-3 in	0			TM C	35 GRABS	01	03	
WR2359	11-AUG-88	S0	SOIL, WEST, 1712 HILL ROAD, MANHOLE NUMBER 2741	0-3 in	0			TM C	35 GRABS	01	03	
WR2360	11-AUG-88	S0	SOIL, SOUTH, 1712 HILL ROAD, MANHOLE NUMBER 2741	0-3 in	0			TM C	35 GRABS	01	03	
WR2361	11-AUG-88	S0	SOIL, SOUTH, 1712 HILL ROAD, MANHOLE NUMBER 2741, EPA SPLIT	0-3 in	0	SPLT	WR2360	C	35 GRABS	04	03	
WR2362	11-AUG-88	S0	SOIL, SOUTH, 1804 HILL ROAD, MANHOLE NUMBER 2740	0-3 in	0			TM C	35 GRABS	01	03	
WR2363	11-AUG-88	S0	SOIL, WEST, 1804 HILL ROAD, MANHOLE NUMBER 2740	0-3 in	0			TM C	35 GRABS	01	03	
WR2364	11-AUG-88	S0	SOIL, WEST, 1804 HILL ROAD, MANHOLE NUMBER 2740, EPA SPLIT	0-3 in	0	SPLT	WR2363	C	35 GRABS	04	03	
WR2365	11-AUG-88	S0	SOIL, EAST, 1804 HILL ROAD, MANHOLE NUMBER 2740	0-3 in	0			TM C	35 GRABS	01	03	
WR2366	11-AUG-88	S0	SOIL, DITCH IN BACKYARD OF 1712 AND 1804 HILL ROAD	0-3 in	0			TM C	7 GRABS	01	03	
WR2367	11-AUG-88	L1	LIQUID, HEXANE, EQUIPMENT RINSE		0	ORI		TM C	NA	01	03	
WR2368	11-AUG-88	S0	SOIL, DITCH IN BACKYARD OF 1712 AND 1804 HILL ROAD, EPA SPLIT	0-3 in	0	SPLT	WR2366	C	7 GRABS	04	03	
WR2369	11-AUG-88	S0	SOIL, DITCH BEHIND 1704 HILL ROAD, EPA SPLIT	0-3 in	0	SPLT	WR2371	C	10 GRABS	04	03	
WR2370	11-AUG-88	L1	LIQUID, HEXANE, TRIP BLANK		0	ORL		TM C	NA	01	03	
WR2371	11-AUG-88	S0	SOIL, DITCH BEHIND 1704 HILL ROAD, WEST OF MANHOLE NUMBER 2745	0-3 in	0			TM C	10 GRABS	01	03	
WR2372	12-AUG-88	S0	SOIL, MARSHALL ROAD MANHOLE NUMBER 1152 NORTHEAST	0-3 in	0			TM C	30 GRABS	01	03	

TABLE KEY

QC - Quality Control

ORI - Rinse

ORL - Blank

ORIG - Original

ODU - Duplicate

SPLT - Split

QDM - Mix Check

LB - Lab

TM - TNS Analytical
Services
Indianapolis, INMK - IT Analytical
Services
Midlandbrook Pike
Knoxville, TN

Sample Status

03 - Rush

02 - Analyze (no rush)

03 - Hold

04 - EPA Split

Analysis Request

03 - TCDD;

2,3,7,8-TCDD

04 - Other Analytical
Parameters

TABLE A-1
 NUMERIC LISTING OF ALL SAMPLES COLLECTED

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER		QC PARTNER	REFERENCE LB AREAS	UNITS IN COMPOSITE	SAMPLE ANALYSIS STATUS REQUEST	
					QC						
WH2373	12-AUG-88	SO	SOIL, MARSHALL ROAD MANHOLE NUMBER 1152, SOUTHWEST	0-3 in.	0			TM C	30 GRABS	01	03
WH2374	12-AUG-88	SO	SOIL, MARSHALL ROAD MANHOLE NUMBER 1152, NORTHWEST	0-3 in.	0			TM C	30 GRABS	01	03
WH2375	12-AUG-88	SO	SOIL, ROW 5, NORTH, 250-500 FT. WEST ROCKY BRANCH.	0-3 in.	0			TM C	25 GRABS	01	03
WH2376	12-AUG-88	SO	SOIL, ROW 5, WEST, 250-500 FT. WEST ROCKY BRANCH.	0-3 in.	0			TM C	25 GRABS	01	03
WH2377	12-AUG-88	SO	SOIL, ROW 5, SOUTH, 250-500 FT. WEST ROCKY BRANCH.	0-3 in.	0			TM C	25 GRABS	01	03
WH2378	12-AUG-88	SO	SOIL, ROW 6, NORTH, 250-500 FT. WEST ROCKY BRANCH	0-3 in.	0			TM C	21 GRABS	01	03
WH2379	12-AUG-88	SO	SOIL, ROW 6, WEST, 250-500 FT. WEST ROCKY BRANCH.	0-3 in.	0			TM C	21 GRABS	01	03
WH2380	12-AUG-88	SO	SOIL, ROW 6, SOUTH, 250-500 FT. WEST ROCKY BRANCH.	0-3 in.	0			TM C	21 GRABS	01	03
WH2381	12-AUG-88	LJ	LIQUID, HEXANE, EQUIPMENT RINSE		0	QRI		TM C	NA	01	03
WH2382	12-AUG-88	LJ	LIQUID, HEXANE, TRIP BLANK.		0	QBL		TM C	NA	01	03
WH2383	07-SEP-88	SO	SOIL, GARDEN AT 2113 BRADEN.	0-3 in.	0			TM D	6 grabs	01	03

536 records selected

TABLE KEY

QC - Quality Control

QRI - Rinse

QBL - Blank

ORIG - Original

QDU - Duplicate

SPLT - Split

QDM - Mix Check

LB - Lab

TM - TMS Analytical

Services

Indianapolis, IN

MK - IT Analytical

Services

Middlebrook Pike

Knoxville, TN

Sample Status

01 - Rush

02 - Analyze (no rush)

03 - Hold

04 - EPA Split

Analysis Request

03 - TCDD;

2,3,7,8-TCDD

04 - Other Analytical

Parameters

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TABLE A-2

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TABLE A-2
 NUMERIC LISTING AND ANALYTICAL RESULTS OF ALL SAMPLES
 SUBMITTED FOR DIOXIN ANALYSIS

SAMPLE NUMBER	SAMP TYPE	TCOD Q	2370 TCOD Q	DEPTH OF TUBE	DIOXIN UNITS	DATE SAMPLED	FEET	REFERENCE AREAS	QC CODE	QA/QC PARTNER	UNITS IN COMPOSITE	SAMPLE STATUS
							ABOVE WATER SAMPLE LOCATION DESCRIPTION					
WH2295	LI	3 U			ng/sample	19-JUL-88	0 LIQUID, HEXANE, TRIP BLANK	C	QBL	NA		01
WH2296	SE	1 09	.29	0-4 in	ppb	21-JUL-88	-3.5 SLUDGE, WEST END OF NORTH OXIDATION POND, TOP SEDIMENT/SLUDGE	G1			4 GRABS	01
WH2297	CO	3 U		0-3 in	ppb	21-JUL-88	-5 SLUDGE, WEST END OF NORTH OXIDATION POND, INTERFACE	G1			4 CORINGS	01
WH2298	SE	1 702	.97	0-4 in	ppb	21-JUL-88	-3.5 SLUDGE, EAST END OF NORTH OXIDATION POND, TOP SEDIMENT/SLUDGE	G1			4 GRABS	01
WH2299	CO	3 U		0-3 in	ppb	21-JUL-88	-5 SLUDGE, EAST HALF OF NORTH OXIDATION POND, INTERFACE	G1	ORIG WH2210		4 CORINGS	01
WH2210	CO	3 U		0-3 in	ppb	21-JUL-88	-5 SLUDGE, EAST HALF OF NORTH OXIDATION POND, INTERFACE	G1	QDU WH2209		4 CORINGS	01
WH2212	CO	3 U		0-3 in	ppb	21-JUL-88	-5 SLUDGE, WEST END OF SOUTH OXIDATION POND, INTERFACE	G2			4 CORINGS	01
WH2213	SE	3 U		0-4 in	ppb	21-JUL-88	-3.5 SLUDGE, WEST END OF SOUTH OXIDATION POND, TOP SEDIMENT/SLUDGE	G2			4 GRABS	01
WH2214	CO	3 U		0-3 in	ppb	21-JUL-88	-5 SLUDGE, EAST END OF SOUTH OXIDATION POND, INTERFACE	G2			4 CORINGS	01
WH2215	SE	3 U		0-4 in	ppb	21-JUL-88	-3.5 SLUDGE, EAST END OF SOUTH OXIDATION POND, TOP SEDIMENT/SLUDGE	G2			4 GRABS	01
WH2220	SE	3 U		0-2 in	ppb	22-JUL-88	-12 SLUDGE, NORTH QUADRANT OF AERATION BASIN, TOP SEDIMENT/SLUDGE	F			6 GRABS	01
WH2221	SE	2 705	1 41	0-2 in	ppb	22-JUL-88	-12 SLUDGE, NORTH-EAST QUADRANT AERATION BASIN, TOP SEDIMENT/SLUDGE	F			6 GRABS	01
WH2222	SE	2 84	2 83	0-2 in	ppb	22-JUL-88	-12 SLUDGE, SOUTH QUADRANT AERATION BASIN, TOP SEDIMENT/SLUDGE	F	ORIG WH2226		6 GRABS	01
WH2224	SE	71		0-2 in	ppb	22-JUL-88	-12 SLUDGE, SOUTH-WEST QUADRANT AERATION BASIN, TOP SEDIMENT/SLUDGE	F			6 GRABS	01
WH2226	SE	2 136	1 07	0-2 in	ppb	22-JUL-88	-12 SLUDGE, SOUTH QUADRANT AERATION BASIN, TOP SEDIMENT/SLUDGE	F	QDU WH2222		6 GRABS	01
WH2227	CO	3 U		0-1 in	ppb	22-JUL-88	-15 SLUDGE, NORTH QUADRANT AERATION POND, INTERFACE	F			6 CORINGS	01
WH2228	CO	3 U		0-1 in	ppb	22-JUL-88	-15 SLUDGE, NORTH-EAST QUADRANT AERATION BASIN, INTERFACE	F			6 CORINGS	01
WH2229	CO	3 U		0-1 in	ppb	22-JUL-88	15 SLUDGE, SOUTH QUADRANT AERATION BASIN, INTERFACE	F	ORIG WH2230		6 CORINGS	01
WH2230	CO	3 U		0-1 in	ppb	22-JUL-88	-15 SLUDGE, SOUTH QUADRANT AERATION BASIN, INTERFACE	F	QDU WH2229		6 CORINGS	01
WH2232	CO	3 U		0-1 in	ppb	22-JUL-88	-15 SLUDGE, SOUTH-WEST QUADRANT AERATION BASIN, INTERFACE	F			6 CORINGS	01
WH2233	SO	3 U		0-3 in	ppb	23-JUL-88	0 SOIL, EAST, 1000-1250 FT. E. ROCKY BR RESAMPLE ROW 1, EXCEPT DIRT PILE	C			43 GRABS	01
WH2234	SO	3 U		0-3 in	ppb	23-JUL-88	0 SOIL, EAST, 1000-ROAD, E ROCKY BR RESAMPLE, ROW 1, EXCEPT DIRT PILE	C			35 GRABS	01
WH2235	SO	3 U		0-3 in	ppb	23-JUL-88	0 SOIL, EAST, ROAD 1250 FEET, EAST ROCKY BRANCH RESAMPLE, ROW 1	C			8 GRABS	01
WH2236	SO	3 U		0-3 in	ppb	23-JUL-88	0 SOIL, WEST, MANHOLE NUMBER 2735 AT 617 OAKLEY	C			35 GRABS	01
WH2237	SO	3 U		0-3 in	ppb	23-JUL-88	0 SOIL, NORTH, MANHOLE NUMBER 2735 AT 617 OAKLEY	C			35 GRABS	01

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TABLE A-2
 NUMERIC LISTING AND ANALYTICAL RESULTS OF ALL SAMPLES
 SUBMITTED FOR DIOXIN ANALYSIS

SAMPLE NUMBER	SMP TYPE	TCOD Q	2378 TCOD Q	DEPTH OF TAKE	DIOXIN UNITS	DATE SAMPLED	FEET	REFERENCE AREAS	GC CODE	QA/QC PARTNER	UNITS IN COMPOSITE	SAMPLE STATUS
							ABOVE WATER SAMPLE LOCATION DESCRIPTION					
MR2238	SO	3 U		0.3 in	ppb	23-JUL-88	0 SOIL, SOUTH, MANHOLE NUMBER 2735 AT 617 OAKLEY	C			35 GRABS	01
MR2240	LI	58			ng/sample	23-JUL-88	0 LIQUID, HEXANE, EQUIPMENT WASH	C	QRI		2 RINSES	01
MR2240V	LI	61			ng/sample	23-JUL-88	0 LIQUID, HEXANE, EQUIPMENT WASH, VERIFICATION ANALYSIS OF MR2240	C	QRI		2 RINSES	01
MR2241	SO	3 U		0-3 in	ppb	23-JUL-88	5 SOIL, 2510-2940 FT. E ROCKY BRANCH, RESAMPLE, 6 IN LEVEL, RIGHT BANK.	A			38 GRABS	01
MR2242	SO	3 U		0-3 in	ppb	23-JUL-88	0 SOIL, VACANT LOT AT PARKING AREA NEXT TO GATE BETWEEN 3010 & 3018 HIMES	D			NA	01
MR2243	SO	3 U		0-3 in	ppb	23-JUL-88	0 SOIL, FIELD BEHIND CHURCH ON BRADEN STREET.	D			NA	01
MR2244	SO	3 U		0-3 in	ppb	25-JUL-88	0 SOIL, 604 BROOKHAVEN COURT, MIDDLE OF FENCE, BETWEEN FENCE & POOL.	D			NA	01
MR2245	SO	3 U		0-3 in	ppb	25-JUL-88	0 SOIL, 604 CHERYL, MIDDLE OF FENCE ACROSS BACKYARD	D			NA	01
MR2246	SO	3 U		0-3 in	ppb	25-JUL-88	0 SOIL 2200 BRADEN, 4" NORTH SIDE OF TELEPHONE POLE ON CORNER	D			NA	01
MR2247	SO	3 U		0-3 in	ppb	25-JUL-88	0 SOIL 2111 BRADEN, BETWEEN PLANTS & HOUSE, 4 FT ON WEST SIDE	D			NA	01
MR2249	SO	723		0-3 in	ppb	24-JUL-88	0 SOIL, ROW 3, NORTH, 0-250 FT. WEST ROCKY BRANCH	C			50 GRABS	01
MR2250	SO	794		0-3 in	ppb	24-JUL-88	0 SOIL, ROW 3, WEST, 0-250 FT. WEST ROCKY BRANCH	C			50 GRABS	01
MR2252	SO	869		0-3 in	ppb	24-JUL-88	0 SOIL, ROW 3, SOUTH, 0-250 FT. WEST ROCKY BRANCH	C			50 GRABS	01
MR2256	LI	3 U			ng/sample	24-JUL-88	0 LIQUID, HEXANE, EQUIPMENT WASH	C	QRI		2 RINSES	01
MR2257	SO	1 74	1 08	0-3 in	ppb	24-JUL-88	0 SOIL, ROW 3, NORTH, 250-500 FT. WEST ROCKY BRANCH	C			50 GRABS	01
MR2258	SO	1 476	1 74	0-3 in	ppb	24-JUL-88	0 SOIL, ROW 3, SOUTH, 250-500 FT. WEST ROCKY BRANCH	C			50 GRABS	01
MR2259	SO	961	96	0-3 in	ppb	25-JUL-88	0 SOIL, ROW 3, WEST, 250-500 FT. WEST ROCKY BRANCH	C			50 GRABS	01
MR2260	SO	867	1 15	0-3 in	ppb	25-JUL-88	0 SOIL ROW 4, NORTH, 250-500 FT WEST ROCKY BRANCH	C			50 GRABS	01
MR2261	SO	1 476	1 32	0-3 in	ppb	25-JUL-88	0 SOIL ROW 4, SOUTH, 250-500 FT. WEST ROCKY BRANCH	C			50 GRABS	01
MR2262	SO	1 255	1 45	0-3 in	ppb	25-JUL-88	0 SOIL, ROW 4, WEST, 250-500 FT. WEST ROCKY BRANCH	C			50 GRABS	01
MR2263	SO	417		0-3 in	ppb	25-JUL-88	0 SOIL, ROW 3, WEST, 500-750 FT. WEST ROCKY BRANCH	C			48 GRABS	01
MR2264	SO	3 U		0-3 in	ppb	25-JUL-88	0 SOIL, ROW 3, NORTH 500-750 FT. WEST ROCKY BRANCH	C			48 GRABS	01
MR2266	SO	3 U			ppb	24-JUL-88	0 SOIL, BLANK	C	QBL		NA	01
MR2267	SO	3 U		0-3 in	ppb	25-JUL-88	0 SOIL, ROW 3, SOUTH, 500-750 FT. WEST ROCKY BRANCH	C			48 GRABS	01
MR2271	SO	729		0-3 in	ppb	25-JUL-88	0 SOIL, ROW 3, WEST 750-918 FT. WEST ROCKY BRANCH	C			30 GRABS	01

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TABLE A-2
 NUMERIC LISTING AND ANALYTICAL RESULTS OF ALL SAMPLES
 SUBMITTED FOR DIOXIN ANALYSIS

SAMPLE NUMBER	SAMP TYPE	TCDD @	2378 TCDD @ OF TALK	DEPTH IN	DIOXIN UNITS	DATE SAMPLED	FEET ABOVE WATER SAMPLE LOCATION DESCRIPTION		REFERENCE AREAS	QC CODE	QA/QC PARTNER	UNITS IN COMPOSITE	SAMPLE STATUS
MR2272	SO	.695		0-3 in	ppb	25-JUL-88	0	SOIL, ROW 3, NORTH, 750-930 FT, WEST ROCKY BRANCH	C			30 GRABS	01
MR2273	SO	.584		0-3 in	ppb	25-JUL-88	0	SOIL, ROW 3, SOUTH, 750-930 FT, WEST ROCKY BRANCH	C			30 GRABS	01
MR2277	SO	.539		0-3 in	ppb	25-JUL-88	0	SOIL, ROW 3, NORTH, 2112 WEST LANE	C			32 GRABS	01
MR2278	SO	.716		0-3 in	ppb	25-JUL-88	0	SOIL, ROW 3, SOUTH, 2112 WEST LANE	C			32 GRABS	01
MR2280	LI	.3 U			ng/sample	25-JUL-88	0	LIQUID, HEXANE, EQUIPMENT RINSE	C	QRI		2 RINSES	01
MR2281	LI	.3 U			ng/sample	25-JUL-88	0	LIQUID, HEXANE, TRIP BLANK	C	QRI	NA	01	TABLE KEY
MR2282	SO	.575		0-3 in	ppb	25-JUL-88	0	SOIL, ROW 3, WEST, 2112 WEST LANE	C			32 GRABS	01
MR2286	SO	1.621	.33	0-3 in	ppb	26-JUL-88	0	SOIL, ROW 3, SOUTH, 2293 BRADEN	C			27 GRABS	01
MR2287	SO	.3 U		0-3 in	ppb	26-JUL-88	0	SOIL, ROW 3, NORTH, 2293 BRADEN	C			27 GRABS	01
MR2288	SO	U		0-3 in		26-JUL-88	0	SOIL, ROW 3, NORTH, 2293 BRADEN, EPA SPLIT	C	SPLIT	MR2287	27 GRABS	04
MR2289	SO	.3 U		0-3 in	ppb	26-JUL-88	0	SOIL, ROW 3, WEST, 2293 BRADEN	C			27 GRABS	01
MR2290	SO	.3 U		0-3 in	ppb	26-JUL-88	0	SOIL, ROW 4, WEST, 2293 BRADEN	C			24 GRABS	01
MR2291	SO	.3 U		0-3 in	ppb	26-JUL-88	0	SOIL, ROW 4, SOUTH, 2293 BRADEN	C			24 GRABS	01
MR2292	SO	.3 U		0-3 in	ppb	26-JUL-88	0	SOIL, ROW 4, NORTH, 2293 BRADEN	C			24 GRABS	01
MR2293	SO	.387		0-3 in	ppb	26-JUL-88	0	SOIL, ROW 3, SOUTH, 2293 BRADEN	C			36 GRABS	01
MR2294	SO	.3 U		0-3 in	ppb	26-JUL-88	0	SOIL, ROW 3, WEST, 2293 BRADEN	C			36 GRABS	02
MR2295	SO	.3 U		0-3 in	ppb	26-JUL-88	0	SOIL, ROW 3, NORTH, 2293 BRADEN	C			36 GRABS	01
MR2305	SO	1.077	1.82	0-3 in	ppb	26-JUL-88	0	SOIL, ROW 3, NORTH, 1704 HILL ROAD	C			28 GRABS	01
MR2306	SO	.949	2.44	0-3 in	ppb	26-JUL-88	0	SOIL, ROW 3, SOUTH, 1704 HILL ROAD	C			28 GRABS	01
MR2307	SO	2.503	1.68	0-3 in	ppb	26-JUL-88	0	SOIL, ROW 3, EAST, 1704 HILL ROAD	C			28 GRABS	01
MR2308	SO	.683		0-3 in	ppb	26-JUL-88	0	SOIL, ROW 4, EAST, 1704 HILL ROAD	C			28 GRABS	01
MR2309	SO	.3 U		0-3 in	ppb	26-JUL-88	0	SOIL, ROW 4, NORTH, 1704 HILL ROAD	C			28 GRABS	01
MR2310	SO	.894		0-3 in	ppb	26-JUL-88	0	SOIL, ROW 4, SOUTH, 1704 HILL ROAD	C			28 GRABS	01
MR2311	SO	.3 U		0-3 in	ppb	26-JUL-88	0	SOIL, WEST MARKERS, SOUTH OF DITCH, MARKLE #2745, 1704 HILL ROAD	C			25 GRABS	01
MR2312	SO	.3 U		0-3 in	ppb	26-JUL-88	0	SOIL, EAST MARKERS, SOUTH OF DITCH, MARKLE #2745, 1704 HILL ROAD	C			25 GRABS	01

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TABLE A-2
 NUMERIC LISTING AND ANALYTICAL RESULTS OF ALL SAMPLES
 SUBMITTED FOR DIOXIN ANALYSIS

SAMPLE NUMBER	SAMP TYPE	TCDD Q	2378 TCDD Q	DEPTH OF TAFE	DIOXIN UNITS	DATE SAMPLED	FEET ABOVE WATER	SAMPLE LOCATION DESCRIPTION	REFERENCE AREAS	QC CODE	QA/QC PARTNER	UNITS IN COMPOSITE	SAMPLE STATUS
MR2313	SO	.519		0-3 in	ppb	26-JUL-88	0	SOIL NORTH MARKERS, SOUTH OF DITCH, MANHOLE #2745, 1704 HILL ROAD	C			28 GRABS	01
MR2314	SO	2.849	3.09	0-3 in	ppb	26-JUL-88	0	SOIL, SOUTH MARKER, NORTH OF DITCH, MANHOLE #2745, 1704 HILL ROAD	C	ORIG	MR2316	40 GRABS	01
MR2316	SO	2.814	2.69	0-3 in	ppb	26-JUL-88	0	SOIL, SOUTH MARKER, NORTH OF DITCH, MANHOLE #2745, 1704 HILL ROAD	C	QDU	MR2314	40 GRABS	01
MR2317	SO	2.875	3.25	0-3 in	ppb	26-JUL-88	0	SOIL, EAST MARKERS, NORTH OF DITCH, MANHOLE #2745, 1704 HILL ROAD	C			40 GRABS	01
MR2318	SO	3.183	3.85	0-3 in	ppb	26-JUL-88	0	SOIL, WEST MARKERS, NORTH OF DITCH, MANHOLE #2745, 1704 HILL ROAD	C			40 GRABS	01
MR2319	LI	.3 W			ng/sample	26-JUL-88	0	LIQUID, HEXANE, EQUIPMENT RINSE	C	ORI	NA		01
MR2320	LI	.3 W			ng/sample	26-JUL-88	0	LIQUID, HEXANE, TRIP BLANK	C	ORL	NA		01
MR2321	SO	1.775	1.88	0-3 in	ppb	10-AUG-88	0	SOIL, ROW 1, WEST, 1704 HILL ROAD, REVISED, EAST ROCKY BRANCH	C	ORIG	MR2324	21 GRABS	01
MR2322	SO	3.682	3.65	0-3 in	ppb	10-AUG-88	0	SOIL, ROW 1, SOUTH, 1704 HILL ROAD, REVISED, EAST ROCKY BRANCH	C			21 GRABS	01
MR2324	SO	2.388	2.3	0-3 in	ppb	10-AUG-88	0	SOIL, ROW 1, WEST, 1704 HILL ROAD, REVISED, EAST ROCKY BRANCH	C	QDU	MR2321	21 GRABS	01
MR2325	SO	2.654	2.66	0-3 in	ppb	10-AUG-88	0	SOIL, ROW 1, NORTH, 1704 HILL ROAD, REVISED, EAST ROCKY BRANCH	C			21 GRABS	01
MR2326	SO	10.427	10.92	0-3 in	ppb	10-AUG-88	0	SOIL, ROW 2, WEST, 1704 HILL ROAD, REVISED, EAST ROCKY BRANCH	C			21 GRABS	01
MR2327	SO	5.985	5.76	0-3 in	ppb	10-AUG-88	0	SOIL, ROW 2, NORTH, 1704 HILL ROAD, REVISED, EAST ROCKY BRANCH	C			21 GRABS	01
MR2328	SO	11.397	12.32	0-3 in	ppb	10-AUG-88	0	SOIL, ROW 2, SOUTH, 1704 HILL ROAD, REVISED, EAST ROCKY BRANCH	C			21 GRABS	01
MR2329	SO	3.465	3.34	0-3 in	ppb	10-AUG-88	0	SOIL, SOUTH, 1704 HILL RD., MANHOLE #2745, DITCH REVISED, E ROCKY BRANCH, C	C	ORIG	MR2332	32 GRABS	01
MR2330	SO	3.232	3.19	0-3 in	ppb	10-AUG-88	0	SOIL, EAST, 1704 HILL ST., MANHOLE #2745, DITCH REVISED, E ROCKY BRANCH, C	C			32 GRABS	01
MR2332	SO	2.863	2.78	0-3 in	ppb	10-AUG-88	0	SOIL, SOUTH, 1704 HILL RD., MANHOLE #2745, DITCH, REVISED, E ROCKY BRANCH, C	C	QDU	MR2329	36 GRABS	01
MR2333	SO	4.997	4.8	0-3 in	ppb	10-AUG-88	0	SOIL, NORTH, 1704 HILL RD., MANHOLE #2745, DITCH, REVISED, E ROCKY BRANCH, C	C			32 GRABS	01
MR2334	SO	.335		0-3 in	ppb	10-AUG-88	0	SOIL, NORTH, 1704 HILL RD., NORTH OF DITCH, EAST ROCKY BRANCH	C			24 GRABS	01
MR2336	SO	.334		0-3 in	ppb	10-AUG-88	0	SOIL, SOUTH, 1704 HILL RD., NORTH OF DITCH, EAST ROCKY BRANCH	C			24 GRABS	01
MR2337	SO	.372		0-3 in	ppb	10-AUG-88	0	SOIL, WEST, 1704 HILL RD., NORTH OF DITCH, EAST ROCKY BRANCH	C			24 GRABS	01
MR2338	LI	.3 U			ng/sample	10-AUG-88	0	LIQUID, HEXANE, EQUIPMENT RINSE	C	ORI	NA		01
MR2339	LI	.3 U			ng/sample	10-AUG-88	0	LIQUID, HEXANE, TRIP BLANK	C	ORL	NA		01
MR2340	SE	.3 U		0-1 in	ppb	11-AUG-88	0	SEDIMENT, BAYOU METO AT STP OUTFALL	G3	ORIG	MR2341	10 GRABS	01
MR2341	SE	.3 U		0-1 in	ppb	11-AUG-88	0	SEDIMENT, BAYOU METO AT STP OUTFALL	G3	QDU	MR2340	10 GRABS	01

TABLE 4-1
 NUMERIC LISTING AND ANALYTICAL RESULTS OF ALL SAMPLES
 SUBMITTED FOR DIOXIN ANALYSIS

SAMPLE NUMBER	SAMP TYPE	TCDO Q	2378 TCDO Q	DEPTH OF TAKE UNITS	DIOXIN UNITS	DATE SAMPLED	FEET	REFERENCE AREAS	QC CODE	QA/QC PARTNER	UNITS IN COMPOSITE	SAMPLE STATUS
							ABOVE WATER SAMPLE LOCATION DESCRIPTION					
HR2343	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, BAYOU METO STP OUTFALL, 60 IN, RIGHT BANK	G3			26 GRABS	01
HR2344	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, BAYOU METO AT STP OUTFALL, 36 IN, RIGHT BANK	G3			26 GRABS	01
HR2345	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, BAYOU METO AT STP OUTFALL, 6 IN, RIGHT BANK	G3	ORIG HR2345		26 GRABS	01
HR2347	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, BAYOU METO AT STP OUTFALL, 6 IN, RIGHT BANK	G3	QDU HR2345		26 GRABS	01
HR2348	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, BAYOU METO AT STP OUTFALL, 60 IN, LEFT BANK	G3			26 GRABS	01
HR2349	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, BAYOU METO AT STP OUTFALL, 36 IN, LEFT BANK	G3	ORIG HR2351		26 GRABS	01
HR2351	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, BAYOU METO AT STP OUTFALL, 36 IN, LEFT BANK	G3	QDU HR2349		26 GRABS	01
HR2352	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, BAYOU METO AT STP OUTFALL, 6 IN, LEFT BANK	G3			26 GRABS	01
HR2353	SO	6.939	7.16	0-3 in	ppb	11-AUG-88	0 SOIL, SOUTHWEST, 1704 HILL ROAD, NORTH OF POOL	C			36 GRABS	01
HR2354	SO	6.651	6.52	0-3 in	ppb	11-AUG-88	0 SOIL, NORTHEAST, 1704 HILL ROAD, NORTH OF POOL	C			36 GRABS	01
HR2355	SO	11.577	11.65	0-3 in	ppb	11-AUG-88	0 SOIL, NORTHWEST, 1704 HILL ROAD, NORTH OF POOL	C	ORIG HR2357		36 GRABS	01
HR2357	SO	5.128	5.1	0-3 in	ppb	11-AUG-88	0 SOIL, NORTHWEST, 1704 HILL ROAD, NORTH OF POOL	C	QDU HR2355		36 GRABS	01
HR2358	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, EAST, 1712 HILL ROAD, MANHOLE NUMBER 2741	C			35 GRABS	01
HR2359	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, WEST, 1712 HILL ROAD, MANHOLE NUMBER 2741	C			35 GRABS	01
HR2360	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, SOUTH, 1712 HILL ROAD, MANHOLE NUMBER 2741	C			35 GRABS	01
HR2362	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, SOUTH, 1804 HILL ROAD, MANHOLE NUMBER 2740	C			35 GRABS	01
HR2363	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, WEST, 1804 HILL ROAD, MANHOLE NUMBER 2740	C			35 GRABS	01
HR2365	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, EAST, 1804 HILL ROAD, MANHOLE NUMBER 2740	C			35 GRABS	01
HR2366	SO	3 U		0-3 in	ppb	11-AUG-88	0 SOIL, DITCH IN BACKYARD OF 1712 AND 1804 HILL ROAD	C			7 GRABS	01
HR2367	LI	3 U				11-AUG-88	0 LIQUID, HEXANE, EQUIPMENT RINSE	C	OR1		NA	01
HR2370	LI	3 U				11-AUG-88	0 LIQUID, HEXANE, SPLIT BLANK	C	ORL		NA	01
HR2371	SO	41.012	54.73	0-3 in	ppb	11-AUG-88	0 SOIL, DITCH BEHIND 1704 HILL ROAD, WEST OF MANHOLE NUMBER 2745	C			10 GRABS	01
HR2372	SO	3 U		0-3 in	ppb	12-AUG-88	0 SOIL, MARSHALL ROAD MANHOLE NUMBER 1152, NORTHEAST	C			30 GRABS	01
HR2373	SO	3 U		0-3 in	ppb	12-AUG-88	0 SOIL, MARSHALL ROAD MANHOLE NUMBER 1152, SOUTHWEST	C			30 GRABS	01
HR2374	SO	3 U		0-3 in	ppb	12-AUG-88	0 SOIL, MARSHALL ROAD MANHOLE NUMBER 1152, NORTHWEST	C			30 GRABS	01

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TABLE A-2
 NUMERIC LISTING AND ANALYTICAL RESULTS OF ALL SAMPLES
 SUBMITTED FOR DIOXIN ANALYSIS

SAMPLE NUMBER	SAMP TYPE	TCDD Q	2378 TCDD Q	DEPTH OF TAKE	DIOXIN UNITS	DATE SAMPLED	FEET	REFERENCE AREAS	QC CODE	QA/QC PARTNER	UNITS IN COMPOSITE	SAMPLE STATUS
							ABOVE WATER SAMPLE LOCATION DESCRIPTION					
WH2375	SO	1.239	1.23	0-3 in.	ppb	12-AUG-88	0 SOIL, ROW 5, NORTH, 250-500 FT. WEST ROCKY BRANCH.	C			25 GRABS	01
WH2376	SO	1.275	1.28	0-3 in.	ppb	12-AUG-88	0 SOIL, ROW 5, WEST, 250-500 FT. WEST ROCKY BRANCH.	C			25 GRABS	01
WH2377	SO	1.334	1.34	0-3 in.	ppb	12-AUG-88	0 SOIL, ROW 5, SOUTH, 250-500 FT. WEST ROCKY BRANCH	C			25 GRABS	01
WH2378	SO	.849		0-3 in.	ppb	12-AUG-88	0 SOIL, ROW 6, NORTH, 250-500 FT. WEST ROCKY BRANCH.	C			21 GRABS	01
WH2379	SO	.89		0-3 in.	ppb	12-AUG-88	0 SOIL, ROW 6, WEST, 250-500 FT. WEST ROCKY BRANCH.	C			21 GRABS	01
WH2380	SO	.96		0-3 in.	ppb	12-AUG-88	0 SOIL, ROW 6, SOUTH, 250-500 FT. WEST ROCKY BRANCH.	C			21 GRABS	01
WH2381	LI	.3 U			ng/sample	12-AUG-88	0 LIQUID, HEXANE, EQUIPMENT RINSE.	C	ORI		NA	01
WH2382	LI	.3 U			ng/sample	12-AUG-88	0 LIQUID, HEXANE, TRIP BLANK.	C	QBL		NA	01
WH2383	SO	.3 U		0-3 in.	ppb	07-SEP-88	0 SOIL, GARDEN AT 2113 BRADEN.	D			6 grab	01

A-39
 359 records selected.

TABLE KEY
 Q - Qualifier
 U - Not Detected at stated concentration
 T - To be reported in supplement to this report
 QC - Quality Control
 ORI - Rinse
 QBL - Blank
 ORIG - Original
 QDU - Duplicate
 SPLT - Split
 QDM - Mix Check
 Sample Status
 01 - Rush
 02 - Analyze (no rush)
 03 - Hold

0 1 1 5

TABLE A-3

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10
0

TABLE A-3
OIL AND SEDIMENT SAMPLES COLLECTED AND SPLIT WITH EPA

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION (DESCRIPTION)	DEPTH OF TAKE	FEET ABOVE WATER	QC	OC PARTNER AREAS	REFERENCE	UNITS IN COMPOSITE	
WH1379	30-JUN-88	SO	SOIL, 1510-2000 FT 6 IN ABOVE WATER, ROCKY BRANCH, WEST LEG LEFT BANK	0-3 in	5	SPLT	WH1375	A	50 GRABS	
WH1391	01-JUL-88	SE	SEDIMENT ROCKY BRANCH, WEST LEG AT VERTIC FENCE	grab	-	4	SPLT	WH1378	A	NA
WH1399	03-JUL-88	SO	SOIL, BAYOU METO 6 IN FROM WATER, RIGHT BANK	0-3 in.	5	SPLT	WH1398	J	50 GRABS	
WH1413	04-JUL-88	SO	SOIL, DRY CREEK BED NEXT TO ROCKY BRANCH, S OF REDMOND ROAD, EPA SPLIT	0-3 in	0	SPLT	WH1411	H	50 GRABS	
WH1451	10-JUL-88	SO	SOIL, 2510-2940 FT 6 IN ABOVE WATER, E ROCKY BRANCH LEFT BANK, EPA SPLIT	0-3 in.	5	SPLT	WH1449	A	37 GRABS	
WH2028	11-JUL-88	SO	SOIL, OLD SLUDGE DRYING BEDS OLD TREATMENT PLANT, EPA SPLIT	0-3 in	0	SPLT	WH2026	E1	73 GRABS	
WH2041	11-JUL-88	SO	SOIL ROW 1, WEST 500-750 FEET W ROCKY BRANCH, EPA SPLIT	0-3 in	0	SPLT	WH2039	C	48 GRABS	
WH2047	11-JUL-88	SE	SEDIMENT EAST ROCKY BRANCH AT 1704 HILL ROAD PROPERTY LINE, EPA SPLIT	0-1 in	-	25	SPLT	WH2045	B	NA
WH2095	14-JUL-88	SO	SOIL ROW 1, WEST 2202 BRADEN EPA SPLIT	0-3 in	0	SPLT	WH2092	C	49 GRABS	
WH2105	15 JUL-88	SO	SOIL ROW 1, WEST 618 ALTA COVE, EPA SPLIT	0-3 in	0	SPLT	WH2103	C	44 GRABS	
WH2192	19-JUL-88	SO	SOIL ROW 1 NORTH, 605 BROOKHAVEN COURT, EPA SPLIT	0-3 in	0	SPLT	WH2190	C	14 GRABS	
WH2211	21-JUL-88	CO	SLUDGE EAST HALF OF NORTH OXIDATION POND INTERFACE, EPA SPLIT	0-3 in	-	5	SPLT	WH2209	G1	4 CORINGS
WH2223	22-JUL-88	SE	SLUDGE, S QUADRANT AERATION BASIN TOP SEDIMENT/SLUDGE, EPA SPLIT	0-2 in	-	12	SPLT	WH2222	F	6 GRABS
WH2231	22-JUL-88	CO	SLUDGE SOUTH QUADRANT AERATION BASIN INTERFACE, EPA SPLIT	0-1 in	-	15	SPLT	WH2229	F	6 CORINGS
WH2239	23 JUL-88	SO	SOIL SOUTH, MANHOLE NUMBER 2735 AT 617 OAKLEY, EPA SPLIT	0-3 in	0	SPLT	WH2238	C	35 GRABS	
WH2248	25 JUL-88	SO	SOIL, 2111 BRADEN BETWEEN PLANTS & HOUSE 4 FT, ON WEST SIDE, EPA SPLIT	0-3 in	0	SPLT	WH2247	D	NA	
WH2251	24-JUL-88	SO	SOIL, ROW 3 WEST, 0-250 FT WEST ROCKY BRANCH, EPA SPLIT	0-3 in	0	SPLT	WH2250	C	50 GRABS	
WH2265	25 JUL-88	SO	SOIL ROW 3, WEST, 500-750 FT WEST ROCKY BRANCH, EPA SPLIT	0-3 in	0	SPLT	WH2263	C	48 GRABS	
WH2279	25 JUL-88	SO	SOIL ROW 3 SOUTH 2112 WEST LANE, EPA SPLIT	0-3 in	0	SPLT	WH2278	C	32 GRABS	
WH2288	26-JUL-88	SO	SOIL ROW 3 NORTH 2203 BRADEN, EPA SPLIT	0-3 in	0	SPLT	WH2287	C	27 GRABS	
WH2315	26-JUL-88	SO	SOIL SOUTH MARKER NORTH OF DITCH, MANHOLE #2745 1704 HILL, EPA SPLIT	0-3 in	0	SPLT	WH2314	C	40 GRABS	
WH2323	10 AUG-88	SO	SOIL ROW 1, WEST 1704 HILL ROAD, REVISED, EPA SPLIT	0-3 in	0	SPLT	WH2321	C	21 GRABS	
WH2331	10 AUG-88	SO	SOIL, SOUTH 1704 HILL RD, MANHOLE #2745 DITCH, EPA SPLIT, REVISED	0-3 in	0	SPLT	WH2329	C	36 GRABS	
WH2335	10-AUG-88	SO	SOIL NORTH 1704 HILL RD NORTH OF DITCH, EPA SPLIT	0-3 in	0	SPLT	WH2334	C	24 GRABS	
WH2342	11 AUG-88	SE	SEDIMENT BAYOU METO AT STP OUTFALL, EPA SPLIT	0-1 in	0	SPLT	WH2341	G3	10 GRABS	

TABLE A-3
SOIL AND SEDIMENT SAMPLES COLLECTED AND SPLIT WITH EPA

SAMPLE NUMBER	DATE SAMPLED	SAMP TYPE	SAMPLE LOCATION DESCRIPTION	DEPTH OF TAKE	FEET ABOVE WATER		REFERENCE	UNITS IN COMPOSITE
					QC	QC PARTNER AREAS		
WH2346	11-AUG-88	SO	SOIL, BAYOU METO AT STP OUTFALL, 6 IN., RIGHT BANK, EPA SPLIT.	0-3 in.	0	SPLT WH2345	G3	26 GRABS
WH2350	11-AUG-88	SO	SOIL, BAYOU METO AT STP OUTFALL, 36 IN., LEFT BANK, EPA SPLIT.	0-3 in.	0	SPLT WH2349	G3	26 GRABS
WH2356	11-AUG-88	SO	SOIL, NORTHWEST, 1704 HILL ROAD, NORTH OF POOL, EPA SPLIT	0-3 in.	0	SPLT WH2355	C	36 GRABS
WH2361	11-AUG-88	SO	SOIL, SOUTH, 1712 HILL ROAD, MANHOLE NUMBER 2741, EPA SPLIT.	0-3 in.	0	SPLT WH2360	C	35 GRABS
WH2364	11-AUG-88	SO	SOIL, WEST, 1804 HILL ROAD, MANHOLE NUMBER 2740, EPA SPLIT.	0-3 in.	0	SPLT WH2363	C	35 GRABS
WH2368	11-AUG-88	SO	SOIL, DITCH IN BACKYARD OF 1712 AND 1804 HILL ROAD, EPA SPLIT.	0-3 in.	0	SPLT WH2366	C	7 GRABS
WH2369	11-AUG-88	SO	SOIL, DITCH BEHIND 1704 HILL ROAD, EPA SPLIT.	0-3 in.	0	SPLT WH2371	C	10 GRABS

32 records selected.

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APPENDIX
B

APPENDIX B
SUMMARY DATA REPORT FORMS
SEMI-ISOMER SPECIFIC TCDD

The following report forms for semi-isomer specific TCDD analyses are extracted from analytical reports prepared by TMS Analytical Services, Inc. See Tables A-1 and A-2 (Appendix A) for identification and description of samples. The complete reports of these analyses are located in Volume III.

TCDD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: MER
CASE: 0704
DATE: 07/09/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	NATIVE RATIO	SURROGATE ACC	TCDD CONC.	REFUN CODE	VALID CODE	UNITS	COMMENTS
METHLANK	METHLANK	07/06/88 1923	0.13*	65.10	0.300 U			NG/GM	
SOILBLANK	OCL34615	07/06/88 1935	0.05*	67.54	0.300 U			NG/GM	
SOILSPIKE	OCL35590	07/06/88 1947	1.12	76.72	0.845			NG/GM	
SOIL PE	PE-A	07/06/88 1959	1.10	67.61	0.830			NG/GM	
1352	1352	07/06/88 2010	0.68*	67.99	0.300 U			NG/GM	
1354	1354								
1355	1355								
1361	1361								
1362	1362								
1367	1367								
1368	1368								
1374	1374								
1375	1375								
1377	1377								
1378	1378	07/07/88 1059	0.94*	101.61	0.300 U			NG/GM	
1384	1384								
1385	1385								
1392	1392	07/07/88 1200	146*	99.59	0.300 U			NG/GM	
1393	1393	07/07/88 1219	0.72*	102.40	0.300 U			NG/GM	
1398	1398	07/07/88 1229	0.42*	103.08	0.300 U			NG/GM	

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

NOTE FROM HERCULES WITH AGREEMENT OF EPA RPM: Data for samples 1354, 1355, 1361, 1362, 1367, 1368, 1374, 1375, 1377, 1384 and 1385 have not been confirmed due to analytical difficulties and are therefore not reported here. The data will be reported in a supplement to the Report on Fine Grid Sampling Plan.

GC/MS/MS WORKSHEET REPORT FORM

SITE: HER
 CASE: 0706
 DATE: 07/09/88

SURROGATE CONC 0.01 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
 INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SURR ACC	RAW VALUE	UNITS
JUL0643	METHBLANK	METHBLNK	07/06/88 1923	5.00	654	5120	141351	521065	0.13	65.10	0.003	NS/GM
JUL0644	SOILBLANK	00L34615	07/06/88 1935	5.00	329	1891	142605	506754	0.05	67.54	0.011	NS/GM
JUL0645	SOILSPIKE	00L35590	07/06/88 1947	5.00	151132	134632	251292	780961	1.12	76.72	0.845	NS/GM
JUL0646	SOIL PE	PE-A	07/06/88 1959	5.00	96494	87405	145066	511247	1.10	67.61	0.830	NS/GM
JUL0647	1352	1352	07/06/88 2010	5.02	4913	7217	119640	422138	0.68	67.99	0.045	NS/GM
JUL0648	1354	1354										
JUL0649	1355	1355										
JUL0650	1361	1361										
JUL0651	1362	1362										
JUL0652	1367	1367										
JUL0653	1368	1368										
JUL0654	1374	1374										
JUL0655	1375	1375										
JUL0708	1377	1377										
JUL0709	1378	1378	07/07/88 1059	5.28	16815	17851	129547	305548	0.94	101.61	0.233	NS/GM
JUL0710	1384	1384										
JUL0714	1385	1385										
JUL0715	1392	1392	07/07/88 1200	5.11	148	1	42748	151212	149	99.59	-0.020	NS/GM
JUL0717	1393	1393	07/07/88 1219	4.92	2655	3700	121237	284092	0.72	102.40	0.031	NS/GM
JUL0718	1398	1398	07/07/88 1229	4.84	1193	2813	144516	336440	0.42	103.08	0.006	NS/GM

NOTE FROM HERCULES WITH AGREEMENT OF EPA RPM: Data for samples 1354, 1355, 1361, 1362, 1367, 1368, 1374, 1375, 1377, 1384 and 1385 have not been confirmed due to analytical difficulties and are therefore not reported here. The data will be reported in a supplement to the Report on Fine Grid Sampling Plan.

*** FINAL DATA REPORT SHEET ***

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HSF
CASE: 9776
DATE: 05/15/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	NATIVE RATIO	SURROGATE ACC	TOC CONC.	REMN CODE	VALID CODE	UNITS	COMMENTS
1333	133C	07/07/88 1422	0.15*	102.62	0.300 U			NG/GM	UNITS OF NG PER SAMPLE
1338	133E	07/07/88 1422	1.25*	103.61	0.300 U			NG/GM	UNITS OF NG PER SAMPLE
1442	1442	07/07/88 1442	1.25*	103.85	0.300 U			NG/GM	UNITS OF NG PER SAMPLE
METHBLANK	METHBLK2	07/07/88 1451	0.31*	102.61	0.300 U			NG/GM	
SOILBLANK	SOILBLK2	07/07/88 1501	1.00*	91.74	0.300 U			NG/GM	
SOILSPK1	SOILSPK2	07/07/88 1512	1.04	111.54	0.783			NG/GM	
SOIL PE	SOIL PE2	07/07/88 1521	1.02	104.69	4.048			NG/GM	

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

PERM CODES:

- A AUTOMATIC PERM
- R REQUESTED PERM

GC/MS/MS WORKSHEET REPORT FORM

SITE: HER
CASE: 0766
DATE: 07/20/88

URROGATE CONC 0.06 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.033 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SUSR ACC	RAW VALUE	UNITS
JUL0720	1353	1353	07/07/88 1422	0.04	722	4702	260632	609532	0.15	102.62	-0.223	NG/GM
JUL0721	1358	1358	07/07/88 1432	0.04	135	1	136212	309553	135	105.61	-2.730	NG/GM
JUL0722	1442	1442	07/07/88 1442	0.02	1300	1040	147866	341698	1.25	103.85	-1.661	NG/GM
JUL0723	METHBLANK	METHBLK2	07/07/88 1451	5.00	885	2542	117078	273807	0.31	102.61	0.009	NG/GM
JUL0724	SOILBLANK	SOILBLK2	07/07/88 1501	5.00	1	1	50337	131682	1.00	91.74	-0.023	NG/GM
JUL0725	SOILSPIKE	SOILSPK2	07/07/88 1512	5.00	23461	22611	63291	135633	1.04	111.54	0.783	NG/GM
JUL0707	SOIL PE	SOIL PE2	07/07/88 1521	5.00	186358	183323	95926	215299	1.02	104.89	4.048	NG/GM

TCCD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: MEP
CASE: 0706
DATE: 07/14/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE	ANALYSIS TIME	NATIVE RATIO	SURROGATE ACC	TCCD CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
METHBLANK	METHBLANK	07/07/88	1451	0.31*	102.61	0.300 U			MG/GM	
SOILBLANK	OCL34334	07/06/88	1501	1.00*	91.74	0.300 U			MG/GM	
SOILSPIKE	OCL35725	07/07/88	1512	1.04	111.54	0.783			MG/GM	
SOIL PE	PE-8	07/07/88	1521	1.02	104.69	4.048			MG/GM	
1401	1401	07/07/88	1536	0.50*	100.23	0.300 U			MG/GM	
1404	1404	07/07/88	1545	1.27*	98.63	0.300 U			MG/GM	
1405	1405	07/07/88	1557	0.72*	102.83	0.300 U			MG/GM	
1410	1410	07/07/88	1607	1.04	99.49	0.300 U			MG/GM	
1411	1411	07/07/88	1618	1.02	99.14	0.369			MG/GM	
1412	1412	07/07/88	1629	1.07	100.03	0.489			MG/GM	
1414	1414	07/07/88	1640	0.85*	101.24	0.300 U			MG/GM	
1415	1415	07/07/88	1651	1.07	101.35	0.387			MG/GM	
1416	1416	07/07/88	1702	747*	99.96	0.300 U			MG/GM	
1418	1418	07/07/88	1713	0.59*	102.18	0.300 U			MG/GM	
1421	1421	07/07/88	1737	1.00*	91.00	0.300 U			MG/GM	
1424	1424	07/07/88	1748	1.06	100.84	0.300 U			MG/GM	
1425	1425	07/07/88	1758	1.05	96.70	0.300 U			MG/GM	
1430	1430	07/07/88	1808	1.05	89.73	0.872			MG/GM	
1431	1431	07/07/88	1819	1.01	99.26	0.475			MG/GM	
1436	1436	07/07/88	1830	1.11	99.83	0.300 U			MG/GM	
1437	1437	07/07/88	1842	1.09	95.80	0.632			MG/GM	
1443	1443	07/07/88	1853	1.05	93.09	0.682			MG/GM	
1444	1444	07/07/88	1904	1.06	96.53	0.333			MG/GM	

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: HEP
CASE: 0706
DATE: 07/14/88

SURROGATE CONC 0.06 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.062 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE	ANALYSIS TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SURR ACC	RAW VALUE	UNITS
JUL0723	METHELAMF	METHELANK	07/07/88	1451	5.00	885	2842	117078	273807	6.31	102.61	0.009	NG/GM
JUL0724	SOILBLANK	DCL34334	07/06/88	1501	5.00	1	1	50337	131682	1.00	91.74	-0.021	NG/GM
JUL0725	SOILSPIKE	DCL35723	07/07/88	1512	5.00	23461	22611	63291	135633	1.04	111.54	0.783	NG/GM
JUL0726	SOIL PE	PE-8	07/07/88	1521	5.00	186358	183323	95926	215299	1.02	104.69	4.048	NG/GM
JUL0727	1401	1401	07/07/88	1536	4.82	3098	6165	89098	213264	0.50	100.23	0.083	NG/GM
JUL0728	1404	1404	07/07/88	1545	5.11	3035	2382	130234	316814	1.27	98.63	0.017	NG/GM
JUL0729	1405	1405	07/07/88	1557	5.33	2201	3073	105080	245207	0.72	102.83	0.026	NG/GM
JUL0730	1410	1410	07/07/88	1607	5.05	7801	7317	145278	350260	1.04	99.49	0.060	NG/GM
JUL0731	1411	1411	07/07/88	1618	4.83	35715	35161	121646	293535	1.02	99.14	0.569	NG/GM
JUL0732	1412	1412	07/07/88	1629	4.96	13135	12299	49641	118757	1.07	100.03	0.488	NG/GM
JUL0733	1414	1414	07/07/88	1640	4.99	9916	11604	105785	250527	0.85	101.24	0.180	NG/GM
JUL0734	1415	1415	07/07/88	1651	5.25	22460	20954	101540	239876	1.07	101.35	0.387	NG/GM
JUL0735	1416	1416	07/07/88	1702	4.89	747	1	62598	150272	747	99.96	-0.011	NG/GM
JUL0736	1418	1418	07/07/88	1713	4.97	2482	4170	87353	158137	0.59	102.18	0.077	NG/GM
JUL0738	1421	1421	07/07/88	1737	5.01	3200	3202	65368	172307	1.00	91.00	0.065	NG/GM
JUL0739	1424	1424	07/07/88	1748	5.04	4531	4260	164640	391747	1.06	100.84	0.030	NG/GM
JUL0740	1425	1425	07/07/88	1758	4.94	12720	12160	200054	496149	1.05	96.70	0.097	NG/GM
JUL0741	1430	1430	07/07/88	1808	4.99	75984	72140	147833	393222	1.05	89.73	0.872	NG/GM
JUL0742	1431	1431	07/07/88	1819	4.87	36662	36239	147733	356229	1.01	99.26	0.475	NG/GM
JUL0743	1436	1436	07/07/88	1830	4.85	22213	19926	146666	352024	1.11	89.83	0.269	NG/GM
JUL0744	1437	1437	07/07/88	1842	4.92	52700	48336	152084	379584	1.09	95.80	0.632	NG/GM
JUL0745	1443	1443	07/07/88	1853	5.12	39084	37063	97561	230452	1.05	93.09	0.682	NG/GM
JUL0746	1444	1444	07/07/88	1904	4.89	37960	35685	200999	498731	1.06	96.53	0.335	NG/GM

TCCD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HEP
CASE: 0708
DATE: 07/18/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE	ANALYSIS TIME	NATIVE RATID	SURROGATE ACC	TCCD CONC.	REKUN CODE	VALID CODE	UNITS	COMMENTS
	METHBLANK	07/08/88	1708	0.96*	83.70	0.300 U			MG/GM	
	SOILBLANK	07/08/88	1719	0.00*	71.23	0.300 U			MG/GM	
	SOILSPIKE	07/08/88	1730	1.11	96.48	0.833			MG/GM	
	SOIL PE	07/08/88	1744	1.14	83.29	0.811			MG/GM	
	1446	07/08/88	1755	0.00*	82.67	0.300 U			MG/GM	
	1448	07/08/88	1805	0.00*	82.71	0.300 U			MG/GM	UNITS OF MG PER SAMPLE
	1452	07/08/88	1815	1.03	83.73	0.300 U			MG/GM	
	1453	07/08/88	1826	1.09	79.13	0.300 U			MG/GM	
	1454	07/08/88	1837	1.04	86.36	0.300 U			MG/GM	
	1455	07/08/88	1848	1.11	84.63	0.300 U			MG/GM	
	1459	07/08/88	1859	0.00*	83.28	0.300 U			MG/GM	
	1460	07/08/88	1910	0.57*	87.05	0.300 U			MG/GM	
	1461	07/08/88	1920	0.65*	84.39	0.300 U			MG/GM	
	1462	07/08/88	1932	2.60*	82.24	0.300 U			MG/GM	UNITS OF MG PER SAMPLE

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

REKUN CODES:

- A AUTOMATIC REKUN
- R REQUESTED REKUN

HERCULES INCORPORATED
RECEIVED

JUL 25 1988

B-7

MEDICAL DEPARTMENT

GC/MS/MS WORKSHEET REPORT FORM

SITE: HER
CASE: 0708
DATE: 07/18/88

SURROGATE CONC 0.06 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SURR ACC	RAW VALUE	UNITS
JUL0838	METHBLANK	METHBLANK	07/08/88 1708	5.00	2154	2201	182621	466203	0.98	83.70	-0.001	NG/GR
JUL0839	SOILBLANK	DCL34334	07/08/88 1719	5.00	1	1914	94783	319356	0.00	71.23	-0.009	NG/GR
JUL0840	SOILSPIKE	DCL35590	07/08/88 1730	5.00	63332	59047	139218	344544	1.11	96.48	0.833	NG/GR
JUL0841	SOIL PE	PE-A	07/08/88 1744	5.00	107299	94272	199974	572914	1.14	83.29	0.811	NG/GR
JUL0842	1444	1446	07/08/88 1735	5.04	1	924	100360	290595	0.00	82.89	-0.015	NG/GR
JUL0843	1448	1448	07/08/88 1805	1.00	1	771	307057	899939	0.00	82.71	-0.104	NG/GR
JUL0844	1452	1452	07/08/88 1815	5.04	6337	6150	137454	393784	1.03	83.73	0.052	NG/GR
JUL0845	1453	1453	07/08/88 1826	5.03	15377	14066	83541	252865	1.09	79.13	0.252	NG/GR
JUL0846	1454	1454	07/08/88 1837	5.04	12492	12060	87656	243238	1.04	86.36	0.215	NG/GR
JUL0847	1455	1455	07/08/88 1848	5.03	16091	14488	87479	247592	1.11	84.63	0.268	NG/GR
JUL0848	1459	1459	07/08/88 1859	5.09	1	1065	66358	191229	0.00	83.28	-0.009	NG/GR
JUL0849	1460	1460	07/08/88 1910	5.05	2278	3963	78328	215880	0.57	87.05	0.045	NG/GR
JUL0850	1461	1461	07/08/88 1920	5.02	980	1504	74514	211877	0.65	84.39	0.005	NG/GR
JUL0851	1462	1462	07/08/88 1932	1.00	1823	701	234710	684859	2.60	82.24	-0.071	NG/GR

TODD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HEF
CASE: 0712
DATE: 07/16/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	NATIVE RATIO	SURROGATE ACC	TODD CCNC.	REPUN CODE	VALID CODE	UNITS	COMMENTS
	METHBLANK	METHBLNK	07/13/88	0750	1.00*	80.89	0.300 U		NG/GM
	SOILBLANK	OCL34373	07/13/88	0801	1.00*	88.40	0.300 U		NG/GM
	SOILSPIKE	OCL35612	07/13/88	0813	1.12	80.42	0.806		NG/GM
	SOIL PE	PE-A	07/13/88	0824	1.14	72.40	0.792		NG/GM
	WH1449	WH1449	07/13/88	0835	1.05	70.83	0.304		NG/GM
	WH1450	WH1450	07/13/88	0848	1.09	74.02	0.300 U		NG/GM
	WH1466	WH1466	07/13/88	0904	1.13	75.14	0.300 U		NG/GM
	WH1467	WH1467	07/13/88	0919	1.16	70.18	0.300 U		NG/GM
	WH1468	WH1468	07/13/88	0934	1.18	74.76	0.300 U		NG/GM
	WH1469	WH1469	07/13/88	0948	1.08	77.20	0.300 U		NG/GM
	WH1471	WH1471	07/13/88	1001	1.00*	77.49	0.300 U		NG/GM
	WH1474	WH1474	07/13/88	1011	1.11	78.10	3.309		NG/GM
	WH1475	WH1475	07/13/88	1021	1.15	77.17	0.300 U		NG/GM
	WH1476	WH1476	07/13/88	1033	0.52*	77.66	0.300 U		NG/GM
	WH1480	WH1480	07/13/88	1043	0.69*	77.49	0.300 U		NG/GM
	WH1481	WH1481	07/13/88	1053	0.17*	78.67	0.300 U		NG/GM
	WH1482	WH1482	07/13/88	1104	1.00*	80.29	0.300 U		NG/GM
	WH1483	WH1483	07/13/88	1114	1.00*	78.58	0.300 U		NG/GM
	WH1490	WH1490	07/13/88	1124	1.00*	77.74	0.300 U		NG/GM
	WH1491	WH1491	07/13/88	1248	1.00*	88.33	0.300 U		NG/GM
	WH1492	WH1492	07/13/88	1341	1.00*	73.87	0.300 U		NG/GM
	WH1493	WH1493	07/13/88	1308	1.00*	89.92	0.300 U		NG/GM
	WH1494	WH1494	07/13/88	1354	1.00*	84.41	0.300 U		NG/GM
	WH1495	WH1495	07/13/88	1328	0.70*	78.11	0.300 U		NG/GM

UNITS OF NG PER SAMPLE

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RRUN CODES:

- A AUTOMATIC RRUN
- R REQUESTED RRUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: HER
CASE: 0712
DATE: 07/19/88

SURROGATE CONC 0.06 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE	ANALYSIS TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SURR ACC	RAW VALUE	UNITS
JUL1302	METHBLANK	METHBLANK	07/13/88	0750	5.00	1	1	46240	137196	1.00	80.89	-0.023	NG/GM
JUL1303	SOILBLANK	DCL34373	07/13/88	0861	5.00	1	1	56923	199725	1.00	68.40	-0.023	NG/GM
JUL1304	SOILSPIKE	DCL35612	07/13/88	0813	5.00	54862	49039	100144	297090	1.12	80.42	0.866	NG/GM
JUL1305	SOIL PE	PE-R	07/13/88	0824	5.00	25993	22877	43163	142146	1.14	72.40	0.792	NG/GM
JUL1306	WH1449	WH1449	07/13/88	0835	5.16	19192	18345	78172	264169	1.05	70.83	0.304	NG/GM
JUL1350	WH1450	WH1450	07/13/88	0848	5.22	9977	9046	45626	147595	1.09	74.02	0.269	NG/GM
JUL1307	WH1466	WH1466	07/13/88	0904	5.04	20170	17905	91702	292211	1.13	75.14	0.284	NG/GM
JUL1308	WH1467	WH1467	07/13/88	0919	5.03	9476	8156	63795	217824	1.16	70.18	0.168	NG/GM
JUL1309	WH1468	WH1468	07/13/88	0934	5.04	7314	6196	46141	147874	1.18	74.76	0.192	NG/GM
JUL1369	WH1469	WH1469	07/13/88	0948	5.14	8431	7790	61251	190140	1.08	77.20	0.175	NG/GM
JUL1310	WH1471	WH1471	07/13/88	1001	5.29	1	1	56159	173939	1.00	77.49	-0.022	NG/GM
JUL1311	WH1474	WH1474	07/13/88	1011	5.25	159362	143536	68556	205371	1.11	78.10	3.309	NG/GM
JUL1312	WH1475	WH1475	07/13/88	1021	5.22	14698	12820	127464	395907	1.15	77.17	0.136	NG/GM
JUL1313	WH1476	WH1476	07/13/88	1033	5.09	1458	2827	69584	215007	0.52	77.66	0.024	NG/GM
JUL1314	WH1480	WH1480	07/13/88	1043	5.08	3302	4780	84249	260815	0.69	77.49	0.050	NG/GM
JUL1315	WH1481	WH1481	07/13/88	1053	5.08	552	3344	68752	209727	0.17	78.67	0.021	NG/GM
JUL1316	WH1482	WH1482	07/13/88	1104	1.00	1	1	95415	285217	1.00	80.29	-0.114	NG/GM
JUL1317	WH1483	WH1483	07/13/88	1114	5.06	1	1	27242	83200	1.00	78.58	-0.023	NG/GM
JUL1318	WH1490	WH1490	07/13/88	1124	5.27	1	1	46933	144898	1.00	77.74	-0.022	NG/GM
JUL1319	WH1491	WH1491	07/13/88	1248	5.18	1	1	59337	161224	1.00	88.33	-0.022	NG/GM
JUL1324	WH1492	WH1492	07/13/88	1341	5.24	1	1	34988	113679	1.00	73.87	-0.022	NG/GM
JUL1321	WH1493	WH1493	07/13/88	1308	5.03	1	1	16327	43579	1.00	89.92	-0.023	NG/GM
JUL1325	WH1494	WH1494	07/13/88	1354	5.15	1	1	21950	62413	1.00	84.41	-0.022	NG/GM
JUL1323	WH1495	WH1495	07/13/88	1329	5.06	4089	5860	111623	342832	0.70	78.11	0.045	NG/GM

TCDD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HER
CASE: 0712
DATE: 07/18/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	NATIVE RATIO	SURROGATE ACC	TCDD CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
METHBLANK	METHBLNK	07/14/88 1600	1.00*	92.25	0.300 U			NG/GM	
SOILBLANK	OCL34648	07/14/88 1623	1.00*	89.96	0.300 U			NG/GM	
SOILSPIKE	OCL33568	07/14/88 1633	1.03	103.10	0.896			NG/GM	
SOIL PE	PE-B	07/14/88 1643	1.08	91.43	4.016			NG/GM	
WH1496	WH1496	07/14/88 2319	0.60*	84.07	0.300 U			NG/GM	
WH1497	WH1497	07/14/88 1706	4.21*	92.76	0.300 U			NG/GM	
WH1498	WH1498	07/14/88 1721	0.00*	94.42	0.300 U			NG/GM	
WH1499	WH1499	07/14/88 2257	1.00*	89.22	0.300 U			NG/GM	
WH2000	WH2000	07/14/88 1739	1.00*	92.70	0.300 U			NG/GM	
WH2004	WH2004	07/14/88 1749	1.00*	97.99	0.300 U			NG/GM	
WH2005	WH2005	07/14/88 1801	1.14	89.68	0.300 U			NG/GM	
WH2006	WH2006	07/14/88 1813	1.02	91.43	0.300 U			NG/GM	
WH2010	WH2010	07/14/88 1826	1.00*	93.63	0.300 U			NG/GM	UNITS OF NG PER SAMPLE
WH2015	WH2015	07/14/88 1836	1.00*	91.20	0.300 U			NG/GM	
WH2016	WH2016	07/14/88 1849	1.03	88.21	2.159			NG/GM	
WH2017	WH2017	07/14/88 1907	1.00*	89.53	0.300 U			NG/GM	UNITS OF NG PER SAMPLE
WH2023	WH2023	07/14/88 2151	1.03	93.64	2.138			NG/GM	
WH2024	WH2024	07/14/88 2307	1.14	82.47	0.300 U			NG/GM	
WH2025	WH2025	07/14/88 2203	1.09*	83.33	2.172			NG/GM	
WH2026	WH2026	07/14/88 2214	1.06	82.76	4.750			NG/GM	
WH2027	WH2027	07/14/88 2225	1.12	84.82	2.843			NG/GM	
WH2029	WH2029	07/14/88 2235	1.12	83.73	0.970			NG/GM	
WH2030	WH2030	07/14/88 2246	1.01	83.30	0.307			NG/GM	

QUALIFICATION FLAGS:

* 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
*** HIGH DETECTION LIMIT

RERUN CODES:

A AUTOMATIC RERUN
R REQUESTED RERUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: HER
CASE: 0712
DATE: 07/19/88

SURROGATE CONC 0.06 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE	TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SURR ACC	RAW VALUE	UNITS
JUL1416	METHBLANK	METHBLANK	07/14/88	1600	5.00	1	1	212409	546673	1.00	95.25	-0.023	NG/GM
JUL1417	SOILBLANK	DCL34648	07/14/88	1623	5.00	1	1	138027	362911	1.00	89.96	-0.023	NG/GM
JUL1418	SOILSPIKE	DCL35568	07/14/88	1633	5.00	52046	50371	114036	264147	1.03	103.10	0.896	NG/GM
JUL1419	SOIL PE	PE-B	07/14/88	1643	5.00	407764	376653	179854	460543	1.08	91.43	4.016	NG/GM
JUL1443	WH1496	WH1496	07/14/88	2319	5.01	1839	3078	119423	340878	0.60	84.07	9.011	NG/GM
JUL1421	WH1497	WH1497	07/14/88	1706	4.68	1983	471	92002	237992	4.21	92.76	0.002	NG/GM
JUL1423	WH1498	WH1498	07/14/88	1721	5.15	1	1810	59618	151546	0.00	91.42	0.005	NG/GM
JUL1441	WH1499	WH1499	07/14/88	2257	4.84	J	1	61650	167716	1.00	89.22	-0.024	NG/GM
JUL1425	WH2000	WH2000	07/14/88	1739	5.14	1	1	49767	128845	1.00	92.70	-0.022	NG/GM
JUL1426	WH2004	WH2004	07/14/88	1749	4.99	1	1	17754	43485	1.00	97.95	-0.023	NG/GM
JUL1427	WH2005	WH2005	07/14/88	1801	4.97	9168	8020	72657	194178	1.14	89.66	0.168	NG/GM
JUL1428	WH2006	WH2006	07/14/88	1813	5.17	13841	13543	133451	349912	1.02	91.43	0.157	NG/GM
JUL1429	WH2010	WH2010	07/14/88	1826	1.00	1	1	130769	283937	1.00	95.63	-0.114	NG/GM
JUL1430	WH2015	WH2015	07/14/88	1836	5.03	1	1	150734	396634	1.00	91.20	-0.023	NG/GM
JUL1431	WH2016	WH2016	07/14/88	1849	4.83	115501	111682	95147	255477	1.03	89.21	2.159	NG/GM
JUL1432	WH2017	WH2017	07/14/88	1907	1.00	1	1	244060	654209	1.00	89.53	-0.114	NG/GM
JUL1434	WH2023	WH2023	07/14/88	2151	5.06	39297	38079	33168	83919	1.03	93.64	2.128	NG/GM
JUL1442	WH2024	WH2024	07/14/88	2307	4.97	12167	10663	106653	309997	1.14	82.47	4.153	NG/GM
JUL1435	WH2025	WH2025	07/14/88	2203	4.82	34570	31839	26203	74394	1.09	83.33	2.172	NG/GM
JUL1436	WH2026	WH2026	07/14/88	2214	4.87	94550	89276	33348	93746	1.06	82.76	4.750	NG/GM
JUL1437	WH2027	WH2027	07/14/88	2225	5.03	49386	43949	27667	76774	1.12	84.82	2.843	NG/GM
JUL1438	WH2029	WH2029	07/14/88	2235	5.01	109729	97559	173467	493829	1.12	83.73	0.970	NG/GM
JUL1440	WH2030	WH2030	07/14/88	2246	5.12	9189	9090	44715	128544	1.01	83.30	0.367	NG/GM

TOO FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HER
CASE: 0712
DATE: 07/18/89

AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	NATIVE RATIO	SURROGATE ADD	TOCD CONC.	REPUN CODE	VALID CODE	UNITS	COMMENTS
METHBLM#	METHBLM#	07/15/88 0027	0.18#	81.46	0.300 U			NS/GM	
SOILBLM#	OCL34621	07/15/88 0915	1.00#	75.93	0.300 U			NS/GM	
SOILSPIKE	OCL35879	07/15/88 0926	1.08	90.29	0.841			NS/GM	
SOIL PE	PE-A	07/15/88 0939	1.08	77.22	0.755			NS/GM	
WH2031	WH2031	07/15/88 0949	1.09	65.66	2.889			NS/GM	
WH2032	WH2032	07/15/88 1001	1.08	74.89	2.958			NS/GM	
WH2033	WH2033	07/15/88 1014	1.09	75.62	2.714			NS/GM	
WH2037	WH2037	07/15/88 1025	1.11	78.13	1.246			NS/GM	
WH2038	WH2038	07/15/88 1038	1.11	75.87	1.826			NS/GM	
WH2039	WH2039	07/15/88 1049	1.09	76.31	1.308			NS/GM	
WH2040	WH2040	07/15/88 1100	1.18	74.75	1.650			NS/GM	
WH2045	WH2045	07/15/88 1110	0.45#	78.23	0.300 U			NS/GM	
WH2046	WH2046	07/15/88 1121	0.05#	80.59	0.300 U			NS/GM	
WH2048	WH2048	07/15/88 1135	0.23#	79.81	0.300 U			NS/GM	UNITS OF NG PER SAMPLE

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

REPUN CODES:

- A AUTOMATIC REPUN
- R REQUESTED REPUN

SCANS/MS WORKSHEET REPORT FORM

SITE: FEP
 CASE: 0712
 DATE: 07/16/89

SURROGATE CONC 0.06 RF FACTIVE 2.109 ION RATIO: 1.009 TO 1.232
 INTERNAL STD CONC 1.05 RF SURROGATE 2.063 CORRECTION FACTOR: 0.610

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SUFF ACC	RAW VALUE	UNITS
JUL1446	METHBLANK	METHSLNF	07/15/88 0027	5.00	466	2676	320056	942976	0.18	61.46	-0.015	NG/GM
JUL1502	SOILBLANK	DCL34621	07/15/88 0915	5.00	1	1	46670	140125	1.00	79.93	-0.023	NG/GM
JUL1503	SOILSPIKE	DCL35590	07/15/88 0926	5.00	198592	163398	196375	1647986	1.08	90.29	0.841	NG/GM
JUL1504	SOIL PE	PE-A	07/15/88 0939	5.00	80716	74704	153292	473741	1.09	77.22	0.755	NG/GM
JUL1505	WH2031	WH2031	07/15/88 0949	4.38	742875	691093	332671	1187696	1.09	65.67	2.389	NG/GM
JUL1506	WH2032	WH2032	07/15/88 1001	4.82	192894	176485	47663	306308	1.08	74.89	2.959	NG/GM
JUL1507	WH2033	WH2033	07/15/88 1014	4.93	227304	208208	122931	382335	1.09	75.62	2.716	NG/GM
JUL1508	WH2037	WH2037	07/15/88 1025	4.94	30291	27366	35822	105030	1.11	78.13	1.246	NG/GM
JUL1509	WH2038	WH2038	07/15/88 1038	5.00	109047	99173	65185	265731	1.11	75.67	1.826	NG/GM
JUL1510	WH2039	WH2039	07/15/88 1049	4.86	62609	58795	71376	222342	1.06	76.31	1.309	NG/GM
JUL1511	WH2040	WH2040	07/15/88 1100	5.16	42395	35826	33936	107492	1.18	74.75	1.650	NG/GM
JUL1512	WH2045	WH2045	07/15/88 1110	4.88	1308	2937	66135	264193	0.45	78.23	0.016	NG/GM
JUL1513	WH2046	WH2046	07/15/88 1121	4.97	122	2404	98284	392674	0.05	80.59	-0.602	NG/GM
JUL1514	WH2048	WH2048	07/15/88 1135	1.00	850	3695	276287	830608	0.23	79.81	-0.650	NG/GM

TCDD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HEP
CASE: 0714
DATE: 07/16/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	NATIVE RATIO	SURROGATE ACC	TCDD CONC.	REUN CODE	VALID CODE	UNITS	COMMENTS
	METHBLANK	METHBLANK	07/15/88 1145	1.00*	75.69			0.300 U	NG/GM
	SOILBLANK	OCL3439#	07/15/88 1155	1.00*	90.69			0.300 U	NG/GM
	SOILSP1KE	OCL35514	07/15/88 1207	1.21	92.76			0.774	NG/GM
	SOIL PE	PE-A	07/15/88 1218	1.06	83.05			0.761	NG/GM
	WH2049	WH2049	07/15/88 1229	1.00*	81.10			0.300 U	NG/GM
	WH2050	WH2050	07/15/88 1239	1.90*	83.92			6.300 U	NG/GM
	WH2051	WH2051	07/15/88 1249	1.00*	82.02			0.300 U	NG/GM
	WH2052	WH2052	07/15/88 1259	0.25*	80.76			0.300 U	NG/GM
	WH2053	WH2053	07/15/88 1310	1.14	79.53			0.412	NG/GM
	WH2054	WH2054	07/15/88 1320	1.05	80.05			0.728	NG/GM
	WH2055A	WH2055A	07/15/88 1332	1.11	80.54			0.857	NG/GM
	WH2056B	WH2056B	07/15/88 1343	1.13	82.52			0.820	NG/GM
	WH2057C	WH2057C	07/15/88 1354	1.08	81.91			1.185	NG/GM
	WH2058D	WH2058D	07/15/88 1405	1.04	82.48			1.172	NG/GM
	WH2059	WH2059	07/15/88 1416	1.07	81.57			0.922	NG/GM
	WH2062	WH2062	07/15/88 1426	0.01*	84.33			0.300 U	NG/GM UNITS OF NG PER SAMPLE
	WH2064	WH2064	07/15/88 1436	1.00*	79.86			0.300 U	NG/GM
	WH2065	WH2065	07/15/88 1446	0.43*	86.36			0.300 U	NG/GM
	WH2066	WH2066	07/15/88 1500	1.06	83.39			0.300 U	NG/GM
	WH2067	WH2067	07/15/88 1511	0.89*	80.95			0.300 U	NG/GM
	WH2068	WH2068	07/15/88 1523	1.11	81.22			0.300 U	NG/GM
	WH2072	WH2072	07/15/88 1535	1.00*	79.87			0.300 U	NG/GM UNITS OF NG PER SAMPLE

QUALIFICATION FLAGS:

* 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
*** HIGH DETECTION LIMIT

REUN CODES:

A AUTOMATIC REUN
S REQUESTED REUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: HER
CASE: 0714
DATE: 07/16/00

EFFRGRATE CONC 0.06 RF ACTIVE 2.199 ION PATTN: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURGRATE 2.953 CORRECTION FACTOR: 0.010

LPE SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SUR REC	RAW VALUE	UNITS
JUL1515	METHBLANK	METHBLANK	07/15/00 1145	5.00	1491	1	12472	39495	1491	75.67	0.067	MG/EM
JUL1516	SOILBLANK	OCL34784	07/15/00 1155	5.00	1	1	17030	45065	1.00	90.65	-0.023	MG/EM
JUL1517	SOILSPIKE	OCL35514	07/15/00 1207	5.00	15334	12730	32416	83421	1.21	92.78	0.774	MG/EM
JUL1518	SOIL PE	FS-A	07/15/00 1213	5.00	37949	35243	77003	221350	1.05	63.05	0.761	MG/EM
JUL1519	WH2049	WH2049	07/15/00 1229	5.05	1	1	141271	418044	1.00	81.10	-0.023	MG/EM
JUL1520	WH2050	WH2050	07/15/00 1239	5.04	1	1	68217	195094	1.00	83.92	-0.023	MG/EM
JUL1521	WH2051	WH2051	07/15/00 1249	5.07	1	1	110739	324027	1.00	-82.02	-0.023	MG/EM
JUL1522	WH2052	WH2052	07/15/00 1259	4.90	441	1604	120104	356905	0.28	80.76	-0.009	MG/EM
JUL1523	WH2053	WH2053	07/15/00 1310	4.89	12914	11332	44855	174936	1.14	79.53	0.412	MG/EM
JUL1524	WH2054	WH2054	07/15/00 1320	5.16	53210	50741	106779	318432	1.05	80.05	0.728	MG/EM
JUL1525	WH2055A	WH2055A	07/15/00 1332	5.07	46512	42298	79725	236074	1.11	80.54	0.857	MG/EM
JUL1526	WH2056B	WH2056B	07/15/00 1343	5.04	32949	29197	60043	173602	1.13	92.52	0.920	MG/EM
JUL1527	WH2057C	WH2057C	07/15/00 1354	4.88	28485	26481	38490	110521	1.08	82.91	1.185	MG/EM
JUL1528	WH2058D	WH2058D	07/15/00 1405	4.89	61068	58715	84161	242959	1.04	82.46	1.172	MG/EM
JUL1529	WH2059	WH2059	07/15/00 1416	5.11	109646	102428	178499	521730	1.07	81.57	0.922	MG/EM
JUL1530	WH2062	WH2062	07/15/00 1426	1.00	71	2335	162355	452070	0.01	84.33	-0.054	MG/EM
JUL1531	WH2064	WH2064	07/15/00 1439	5.07	1	1	43276	136937	1.00	79.68	-0.023	MG/EM
JUL1532	WH2065	WH2065	07/15/00 1449	5.05	591	1340	11734	36138	0.47	66.39	0.096	MG/EM
JUL1533	WH2066	WH2066	07/15/00 1500	4.97	20585	19717	175639	535398	1.06	83.39	0.169	MG/EM
JUL1534	WH2067	WH2067	07/15/00 1511	5.01	14964	17006	207711	615263	0.88	80.96	0.100	MG/EM
JUL1535	WH2068	WH2068	07/15/00 1523	5.14	11642	10590	127764	377185	1.11	81.22	0.117	MG/EM
JUL1536	WH2072	WH2072	07/15/00 1535	1.00	1	1	71673	215377	1.00	79.87	-0.114	MG/EM

TCDD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HCR
CASE: 0715
DATE: 07/19/88

APER #	CLIENT SAMPLE #	ANALYSIS DATE	NATIVE TIME	SURROGATE RATIO	TCDD ACC	RERUN CONC.	VALID CODE	UNITS CODE	COMMENTS
	METHBLANK	METHBLNK	07/18/88	0914	0.12*	63.69	0.300 U		NG/GR
	SOILBLANK	OCL34373	07/18/88	0926	0.00*	79.62	0.300 U		NS/GR
	SOILSPIKE	OCL35514	07/18/88	0937	1.08	87.57	0.812		NS/GR
	SOIL PE	PE-A	07/18/88	0948	1.05	75.97	0.812		NS/GR
	WH1479	WH1479	07/18/88	0959	1.09	81.54	0.300 U		NS/GR
	WH2073	WH2073	07/18/88	1011	1.16	75.90	0.546		NS/GR
	WH2074	WH2074	07/18/88	1023	1.14	79.31	0.300 U		NS/GR
	WH2075	WH2075	07/18/88	1035	1.07	76.03	0.300 U		NS/GR
	WH2079	WH2079	07/18/88	1048	1.00*	76.91	0.300 U		NS/GR
	WH2080	WH2080	07/18/88	1059	1.12	75.13	3.498		NS/GR
	WH2081	WH2081	07/18/88	1110	1.08	70.46	4.313		NS/GR
	WH2082	WH2082	07/18/88	1122	1.01	82.30	3.528		NS/GR
	WH2086	WH2086	07/18/88	1133	1.10	77.54	2.329		NS/GR
	WH2087	WH2087	07/18/88	1146	1.09	74.08	1.911		NS/GR
	WH2088	WH2088	07/18/88	1156	1.08	74.22	2.497		NS/GR
	WH2092	WH2092	07/18/88	1207	1.12	77.44	1.727		NS/GR
	WH2093	WH2093	07/18/88	1217	1.07	75.47	1.443		NS/GR
	WH2094	WH2094	07/18/88	1227	1.12	75.85	0.922		NS/GR
	WH2101	WH2101	07/18/88	1238	1.00*	75.60	0.300 U		UNITS OF NS PER SAMPLE
	WH2102	WH2102	07/18/88	1248	0.38*	75.45	0.300 U		UNITS OF NS PER SAMPLE

QUALIFICATION FLAGS:

* 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
*** HIGH DETECTION LIMIT

RERUN CODES:

A AUTOMATIC RERUN
R REQUESTED RERUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: 66P
 CASE: 0715
 DATE: 07/15/98

SUPPGATE CONC 0.06 FF NATIVE 2.169 ION RATIO: 1.009 TO 1.033
 INTERNAL STD CONC 1.05 RF ENRICHMENT 2.083 CORRECTION FACTOR: 0.910

LAP SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	USER ACC	RAW VALUE	UNITS
JUL1802	METHBLANK	METHBLANK	07/18/98 0914	5.00	731	8121	251587	1008204	0.12	83.49	-0.067	MG/CM
JUL1803	SOILBLANK	QCL34373	07/18/98 0926	5.00	1	1153	77975	295744	0.00	75.62	-0.014	MG/CM
JUL1804	SOILSPIKE	QCL25514	07/18/98 0937	5.00	749F3	49019	149585	40591	1.08	67.57	0.812	MG/CM
JUL1805	SOIL PE	FE-A	07/18/98 0948	5.00	57231	54464	100957	316976	1.05	73.97	0.812	MG/CM
JUL1806	WH1479	WH1479	07/18/98 0959	5.03	2791	2569	26885	79049	1.09	81.34	0.137	MG/CM
JUL1807	WH2073	WH2073	07/18/98 1011	5.06	22718	19564	55349	174293	1.16	75.90	0.546	MG/CM
JUL1808	WH2074	WH2074	07/18/98 1023	5.12	12410	10872	93195	293703	1.14	78.31	0.161	MG/CM
JUL1809	WH2075	WH2075	07/18/98 1035	5.05	17180	16119	108220	342934	1.07	74.03	0.205	MG/CM
JUL1810	WH2079	WH2079	07/18/98 1048	5.04	1	1	93633	260977	1.00	74.91	-0.023	MG/CM
JUL1811	WH2080	WH2080	07/18/98 1059	5.13	174775	155787	69619	216993	1.12	75.13	3.499	MG/CM
JUL1812	WH2081	WH2081	07/18/98 1110	5.07	281261	260003	89750	291932	1.08	76.46	4.313	MG/CM
JUL1813	WH2082	WH2082	07/18/98 1122	5.03	55919	55276	25986	73818	1.01	82.30	3.528	MG/CM
JUL1814	WH2086	WH2086	07/18/98 1133	5.10	79085	72059	49130	149425	1.10	77.34	2.329	MG/CM
JUL1815	WH2087	WH2087	07/18/98 1146	5.01	147150	135485	108356	345914	1.09	74.08	1.911	MG/CM
JUL1816	WH2088	WH2088	07/18/98 1156	5.02	104856	96613	59519	188211	1.08	74.22	2.487	MG/CM
JUL1817	WH2092	WH2092	07/18/98 1207	5.13	89761	79046	72491	221498	1.12	77.44	1.727	MG/CM
JUL1818	WH2093	WH2093	07/18/98 1217	5.04	88718	82917	67576	275448	1.07	75.47	1.443	MG/CM
JUL1819	WH2094	WH2094	07/18/98 1227	5.07	59509	53289	89276	279185	1.12	75.85	0.822	MG/CM
JUL1820	WH2101	WH2101	07/18/98 1238	1.00	1	1	206008	653984	1.00	75.60	-0.114	MG/CM
JUL1821	WH2102	WH2102	07/18/98 1248	1.00	1049	2734	224393	713621	0.28	75.46	-0.052	MG/CM

TODD FENAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

DATE: 07/19/88
CASE: 0759
DATE: 07/19/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE	ANALYSIS TIME	PAIIVE RATIO	SURROGATE ASD	TODD CONC.	REFUN CODE	VALID CODE	UNITS	COMMENTS
	MET+BLANK	07/19/88	1447	1.00*	77.04	0.300 U			MG/GR	
	SOL+BLANK	07/19/88	1500	1.00*	69.19	0.300 U			MG/GR	
	SOL+SPINE	07/19/88	1511	1.09	69.29	0.894			MG/GR	
	SOL PE	07/19/88	1524	1.11	76.46	0.782			MG/GR	
	WH1477	07/19/88	1540	0.93*	76.02	0.300 U			MG/GR	
	WH1478	07/19/88	1552	0.3e*	78.37	0.399 U			MG/GR	
	WH2018	07/19/88	1604	1.22	77.90	0.300 U			MG/GR	
	WH2019	07/19/88	1617	1.05	78.07	1.402			MG/GR	
	WH2021	07/19/88	1631	1.06	81.72	1.520			MG/GR	
	WH2022	07/19/88	1643	1.12	81.11	1.484			MG/GR	
	WH2096	07/19/88	1653	1.08	79.74	1.210			MG/GR	
	WH2100	07/19/88	1705	1.06*	80.75	0.300 U			MG/GR	
	WH2103	07/19/88	1715	1.13	77.77	0.631			MG/GR	
	WH2104	07/19/88	1726	1.14	79.33	0.629			MG/GR	
	WH2106	07/19/88	1736	1.16	77.73	0.838			MG/GR	
	WH2107	07/19/88	1748	1.07	77.89	1.206			MG/GR	
	WH2111	07/19/88	1800	1.05	75.86	0.382			MG/GR	
	WH2112	07/19/88	1812	1.03	76.90	0.482			MG/GR	
	WH2113	07/19/88	1617	1.02	74.51	0.566			MG/GR	
	WH2117	07/19/88	1833	0.37*	80.48	0.300 U			MG/GR	UNITS OF MG PER SAMPLE
	WH2118	07/19/88	1629	0.83*	77.30	0.300 U			MG/GR	
	WH2119	07/19/88	1854	1.00*	77.51	0.300 U			MG/GR	
	WH2120	07/19/88	1640	1.09	71.23	5.985			MG/GR	
	WH2121	07/19/88	1653	1.10	66.58	7.188			MG/GR	

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

REFUN CODES:

- A AUTOMATIC REFUN
- R REQUESTED REFUN

EMPLOYEE WORKSHEET REPORT FORM

SITE: MSF
 LABEL: 0719
 DATE: 07/21/88

SUBSTRATE CONC. 4.04 RE NATIVE 0.105 ION RATIO: 1.409 TO 1.253
 INTERVAL STD CONC. 1.45 RE SUBSTRATE 2.957 CORRECTION FACTOR: 0.419

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RTID 257/259	SWP AFC	PM VALUE	DATE
JUL1902	METHBLANK	METHBLANK	07/19/88 1447	5.00	1	1	27460	85542	1.09	77.04	-0.023 NG/EM	
JUL1903	SOILBLANK	SOIL34329	07/19/88 1500	5.00	1	1	44361	132761	1.00	80.19	-0.023 NG/EM	
JUL1904	SOILSFIKE	SOIL35687	07/19/88 1511	5.00	75735	67400	155604	416109	1.09	89.28	0.804 NG/EM	
JUL1905	SOIL PE	FE-A1	07/19/88 1524	5.00	20678	18642	37127	115837	1.11	76.46	0.762 NG/EM	
JUL1906	WH1477	WH1477	07/19/88 1549	5.06	2022	2176	60164	189877	0.93	76.02	0.024 NG/EM	
JUL1907	WH1478	WH1478	07/19/88 1552	5.21	1108	3999	63400	255379	0.36	78.37	0.016 NG/EM	
JUL1908	WH2018	WH2018	07/19/88 1604	5.07	12348	10066	89255	274586	1.22	77.90	0.168 NG/EM	
JUL1909	WH2019	WH2019	07/19/88 1617	4.93	78502	74539	84853	258249	1.05	78.07	1.502 NG/EM	
JUL1910	WH2021	WH2021	07/19/88 1631	4.66	71202	66867	75075	218216	1.06	81.72	1.520 NG/EM	
JUL1911	WH2022	WH2022	07/19/88 1643	5.23	55229	49395	53814	157466	1.12	81.11	1.484 NG/EM	
JUL1912	WH2096	WH2096	07/19/88 1653	4.84	33139	30784	42540	126935	1.08	79.74	1.210 NG/EM	
JUL1913	WH2100	WH2100	07/19/88 1705	4.98	1	1	51592	153339	1.00	80.75	-0.023 NG/EM	
JUL1914	WH2103	WH2103	07/19/88 1715	5.04	32700	29015	72281	221959	1.13	77.77	0.631 NG/EM	
JUL1915	WH2104	WH2104	07/19/88 1726	5.12	38960	34300	66533	260522	1.14	79.33	0.629 NG/EM	
JUL1916	WH2106	WH2106	07/19/88 1736	5.07	39116	33623	64446	197680	0.16	77.73	0.838 NG/EM	
JUL1917	WH2107	WH2107	07/19/88 1748	4.86	48902	45754	61410	187587	1.07	77.89	1.206 NG/EM	
JUL1918	WH2111	WH2111	07/19/88 1800	5.09	3990	3783	14199	44785	1.05	75.86	0.382 NG/EM	
JUL1918	WH2112	WH2112	07/19/88 1812	5.10	35334	34195	103101	326577	1.03	76.90	0.482 NG/EM	
JUL2020	WH2113	WH2113	07/19/88 1617	5.06	57834	56809	141654	454236	1.02	74.51	0.366 NG/EM	
JUL1921	WH2117	WH2117	07/19/88 1833	1.00	1481	4604	263178	784791	0.37	80.48	-0.032 NG/EM	
JUL2021	WH2118	WH2118	07/19/88 1629	5.04	7528	9085	398060	1213281	0.83	77.30	0.010 NG/EM	
JUL1923	WH2119	WH2119	07/19/88 1854	5.11	1	1	21204	65458	1.00	77.51	-0.022 NG/EM	
JUL2022	WH2120	WH2120	07/19/88 1640	5.04	2642946	2429230	617978	1984078	1.09	71.23	5.985 NG/EM	
JUL2023	WH2121	WH2121	07/19/88 1653	5.04	2476225	2259524	453339	1544893	1.10	66.58	7.189 NG/EM	

TCCD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: MER
CASE: 0719
DATE: 07/24/86

AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	NATIVE RATIO	SURROGATE ACC	TCCD CONC.	PERUN CODE	VALID CODE	UNITS	COMMENTS
	METHBLANK	07/20/88 1155	1.00*	77.71	0.300 U			NG/GM	
	SOILBLANK	07/20/88 1206	0.56*	78.73	0.300 U			NG/GM	
	SOILSPIKE	07/20/88 1216	1.12	92.09	0.834			NG/GM	
	SOIL PE	FE-8	07/20/88 1227	1.11	74.22	3.897		NG/GM	
	WH2122	WH2122	07/20/88 1415	1.06	71.11	6.417		NG/GM	
	WH2123	WH2123	07/20/88 1431	1.20	76.95	1.291		NG/GM	
	WH2124	WH2124	07/20/88 1443	1.11	66.61	1.843		NG/GM	
	WH2125	WH2125	07/20/88 1455	1.12	69.52	2.805		NG/GM	
	WH2130	WH2130	07/20/88 1505	0.16*	70.17	0.300 U		NS/GM	
	WH2131	WH2131	07/20/88 1516	1.00*	70.05	0.300 U		NS/GM	
	WH2132	WH2132	07/20/88 1526	1.00*	72.94	0.300 U		NS/GM	
	WH2133	WH2133	07/20/88 1538	0.51*	77.27	0.300 U		NS/GM	
	WH2134	WH2134	07/20/88 1549	1.00*	77.64	0.300 U		NS/GM	
	WH2135	WH2135	07/20/88 1606	0.99*	71.93	0.300 U		NS/GM	
	WH2137	WH2137	07/20/88 1716	0.69*	73.99	0.300 U		NS/GM	
	WH2138	WH2138	07/20/88 1727	1.00*	76.12	0.300 U		NS/GM	
	WH2139	WH2139	07/20/88 1738	1.33*	76.89	0.300 U		NS/GM	
	WH2143	WH2143	07/20/88 1753	1.00*	75.72	0.300 U		NS/GM	
	WH2144	WH2144	07/20/88 1803	1.09*	82.12	0.300 U		NS/GM	
	WH2146	WH2146	07/20/88 1813	1.00*	75.22	0.300 U		NS/GM	
	WH2149	WH2149	07/20/88 1926	0.59*	74.59	0.300 U		NS/GM	
	WH2150	WH2150	07/20/88 1936	0.84*	76.57	0.300 U		NS/GM	

QUALIFICATION FLAGS:

* 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
*** HIGH DETECTION LIMIT

PERUN CODES:

A AUTOMATIC PERUN
R REQUESTED PERUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: MER
 CASE: 0719
 DATE: 07/24/88

SURROGATE CONC 0.05 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
 INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SURR ACC	RAW VALUE	UNITS
JUL2006	METHBLANK	METHBLNK	07/20/88 1155	5.00	1	1	212292	655634	1.00	77.71	-0.023	NS/EM
JUL2007	SOILKANK	OCL34559	07/20/88 1206	5.00	2403	4328	237130	722755	0.56	78.73	-0.001	NS/EM
JUL2008	SOILSPIKE	OCL35536	07/20/88 1216	5.00	52490	46971	105177	275241	1.12	92.09	0.634	NS/EM
JUL2009	SOIL PE	PE-8	07/20/88 1227	5.00	341496	207914	125172	392647	1.11	74.22	3.897	NS/EM
JUL2010	W2122	W2122	07/20/88 1415	5.19	329386	311163	70882	223218	1.05	71.11	6.417	NS/EM
JUL2011	W2123	W2123	07/20/88 1431	4.94	62777	52296	71203	214401	1.20	78.95	1.251	NS/EM
JUL2012	W2124	W2124	07/20/88 1443	4.87	18549	16654	12694	45736	1.11	64.61	1.843	NS/EM
JUL2013	W2125	W2125	07/20/88 1455	4.94	149018	128915	30675	229205	1.12	69.52	2.895	NS/EM
JUL2014	W2130	W2130	07/20/88 1505	5.50	817	5019	230485	785990	0.15	70.17	-0.005	NS/EM
JUL2015	W2131	W2131	07/20/88 1516	5.23	1	1	70027	239927	1.00	70.05	-0.022	NS/EM
JUL2016	W2132	W2132	07/20/88 1526	5.07	1	1	84028	279106	1.00	72.94	-0.023	NS/EM
JUL2017	W2133	W2133	07/20/88 1538	4.88	874	1718	149508	524469	0.51	77.27	-0.011	NS/EM
JUL2018	W2134	W2134	07/20/88 1549	4.96	1	1	44420	142484	1.00	77.64	-0.023	NS/EM
JUL2019	W2135	W2135	07/20/88 1604	5.14	3138	3512	56204	187685	0.89	71.83	0.059	NS/EM
JUL2025	W2137	W2137	07/20/88 1716	5.22	2853	4146	65058	210937	0.69	73.99	0.053	NS/EM
JUL2026	W2138	W2138	07/20/88 1727	5.05	1	1	24449	77061	1.00	76.12	-0.023	NS/EM
JUL2027	W2139	W2139	07/20/88 1739	4.98	4017	3019	42281	131875	1.33	76.89	0.194	NS/EM
JUL2028	W2143	W2143	07/20/88 1753	5.14	1	1	62472	196018	1.00	75.72	-0.022	NS/EM
JUL2029	W2144	W2144	07/20/88 1803	5.02	1	1	41144	126302	1.00	82.12	-0.023	NS/EM
JUL2030	W2146	W2146	07/20/88 1815	5.22	1	1	9316	26532	1.00	75.22	-0.022	NS/EM
JUL2031	W2149	W2149	07/20/88 1824	5.17	4346	7490	110570	357584	0.58	74.38	0.054	NS/EM
JUL2032	W2150	W2150	07/20/88 1836	5.16	10596	13637	280365	797622	0.84	78.37	0.047	NS/EM

TEST DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

DATE: 07/21/88
SHEET: 001
DATE: 07/21/88

SYD	EPA	ANALYSIS	NATIVE	SURROGATE	TCDD	RERUN	VALID	UNITS	COMMENT
SAMPLE #	SAMPLE #	DATE	TIME	RATIO	ACC	CODE	CODE		
METHLABV	METHLABV	07/21/88	1039	0.39*	82.31		0.300 U	NG/GM	
SOILBLANK	COL34687	07/21/88	1050	0.15*	89.97		0.300 U	NG/GM	
SOILSP11E	COL33739	07/21/88	1100	1.07	94.57		0.832	NG/GM	
SOIL PE	PE-A	07/21/88	1111	1.08	80.21		0.801	NG/GM	
WH2151	WH2151	07/21/88	1121	2.40*	78.75		0.300 U	NG/GM	
WH2152A	WH2152A	07/21/88	1132	0.77*	81.18		0.300 U	NG/GM	
WH2153B	WH2153B	07/21/88	1144	1.00*	78.72		0.300 U	NG/GM	
WH2154C	WH2154C	07/21/88	1155	1.06	81.02		0.300 U	NG/GM	
WH2155B	WH2155B	07/21/88	1205	0.76*	82.59		0.300 U	NG/GM	
WH2156	WH2156	07/21/88	1215	0.81*	82.69		0.300 U	NG/GM	
WH2157	WH2157	07/21/88	1225	1.39*	80.78		0.300 U	NG/GM	
WH2158	WH2158	07/21/88	1235	1.26*	79.24		0.300 U	NG/GM	
WH2162	WH2162	07/21/88	1246	1.00*	82.30		0.300 U	NG/GM	
WH2163	WH2163	07/21/88	1256	1.00*	88.13		0.300 U	NG/GM	
WH2164	WH2164	07/21/88	1306	1.00*	83.43		0.300 U	NG/GM	
WH2166	WH2166	07/21/88	1316	1.00*	87.15		0.300 U	NG/GM	
WH2169	WH2169	07/21/88	1326	1.07	77.18		0.300 U	NG/GM	
WH2170	WH2170	07/21/88	1337	1.13	79.58		0.300 U	NG/GM	
WH2171	WH2171	07/21/88	1350	0.00*	80.64		0.300 U	NG/GM	UNITS OF NG PER SAMPLE

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

DATE: 07/21/88 REPORT FROM:

TIME: 1:55
 CASE: 4719
 DATE: 07/21/88

SUBSTRATE CONC: 0.1 RP NATIVE: 1.199 10:1 RATIO: 1.000 TO 1.000
 INTERNAL STD CONC: 1.1 RP SUPPLEMENT: 1.000 CORRECTION FACTOR: 0.10

LAB	SMD	EPA	ANALYSIS	SAMPLE	ION 257	ION 259	ION 261	ION 263	RATIO	SURF	VAL	UNIT
SAMPLE #	SAMPLE #	SAMPLE #	DATE TIME	AMOUNT				257/259	ADD			
JUL2102	METHBLANK	METHBLANK	07/21/88 1039	5.00	520	1342	19179	559225	0.79	90.71	-0.015	MG/GM
JUL2103	SOILBLANK	SOIL34687	07/21/88 1050	5.00	1063	2864	748592	1033186	0.15	80.97	-0.005	MG/GM
JUL2104	SOILSPIKE	SOIL35739	07/21/88 1100	5.00	88466	82456	187335	473994	1.91	74.57	0.332	MG/GM
JUL2105	SOIL PE	PE-A	07/21/88 1111	5.00	66537	61570	123983	368866	1.02	80.21	0.201	MG/GM
JUL2106	WH2151	WH2151	07/21/88 1121	5.04	2818	1175	43933	137806	2.40	73.75	0.947	MG/GM
JUL2107	WH2152A	WH2152A	07/21/88 1132	4.97	2325	3016	67029	198098	0.77	51.18	0.341	MG/GM
JUL2108	WH2153B	WH2153B	07/21/88 1144	5.20	1	1	47386	144472	1.00	78.72	-0.022	MG/GM
JUL2109	WH2154C	WH2154C	07/21/88 1155	4.99	909	4610	68542	262141	1.06	81.02	0.065	MG/GM
JUL2110	WH2155D	WH2155D	07/21/88 1205	5.22	1879	2467	49714	144399	0.76	82.55	0.046	MG/GM
JUL2111	WH2156	WH2156	07/21/88 1215	5.01	3014	3708	94585	274435	0.81	82.69	0.035	MG/GM
JUL2112	WH2157	WH2157	07/21/88 1225	4.96	3366	2425	41438	123006	1.39	80.78	0.069	MG/GM
JUL2113	WH2158	WH2158	07/21/88 1235	5.19	4012	3193	87628	265261	1.26	79.24	0.040	MG/GM
JUL2114	WH2162	WH2162	07/21/88 1246	5.05	1	1	78956	210187	1.00	82.30	-0.022	MG/GM
JUL2115	WH2163	WH2163	07/21/88 1256	4.93	1	1	40567	110469	1.00	88.13	-0.025	MG/GM
JUL2116	WH2164	WH2164	07/21/88 1306	4.99	1	1	38776	111544	1.00	85.43	-0.023	MG/GM
JUL2117	WH2166	WH2166	07/21/88 1316	5.10	1	1	17901	49296	1.00	87.15	-0.022	MG/GM
JUL2118	WH2169	WH2169	07/21/88 1324	5.20	11029	10337	113186	351604	1.07	77.18	0.117	MG/GM
JUL2119	WH2170	WH2170	07/21/88 1337	5.16	18727	16563	212534	640383	1.13	79.58	0.104	MG/GM
JUL2120	WH2171	WH2171	07/21/88 1350	1.00	9	5148	277707	826467	0.00	80.64	-0.040	MG/GM

TCDD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HER
CASE: 0720
DATE: 07/23/88

SNO SAMPLE #	ZPR SAMPLE #	ANALYSIS DATE	NATIVE TIME	RATIO	SURROGATE ACC	TCDD CONC.	REPN CODE	VALID CODE	UNITS	COMMENTS
METHBLANK	METHBLNK	07/21/88	1513	1.00*	88.42	0.300 U			NG/GM	
SOILBLANK	SOILBLANK	07/21/88	1524	1.00*	84.14	0.300 U			NG/GM	
SOILSPIKE	SOILSPIKE	07/21/88	1534	1.10	88.52	0.804			NG/GM	
SOIL PE	FE-A	07/21/88	1545	1.06	80.87	0.808			NG/GM	
WH2034	WH2034	07/21/88	1556	1.11	81.05	2.153			NG/GM	
WH2035	WH2035	07/21/88	1607	1.10	79.65	1.986			NG/GM	
WH2036	WH2036	07/21/88	1618	1.09	81.66	1.864			NG/GM	
WH2042	WH2042	07/21/88	1629	1.14	82.38	0.693			NG/GM	
WH2043	WH2043	07/21/88	1641	1.03	81.28	1.445			NG/GM	
WH2044	WH2044	07/21/88	1652	1.08	82.98	0.738			NG/GM	
WH2083	WH2083	07/21/88	1703	1.09	79.08	2.792			NG/GM	
WH2084	WH2084	07/21/88	1715	1.15	79.68	1.637			NG/GM	
WH2085	WH2085	07/21/88	1725	1.07	93.33	1.343			NG/GM	
WH2089	WH2089	07/21/88	1737	1.11	82.53	1.253			NG/GM	
WH2090	WH2090	07/21/88	1747	1.08	84.26	1.08*			NG/GM	
WH2091	WH2091	07/21/88	1758	1.07	82.75	1.265			NG/GM	
WH2097	WH2097	07/21/88	1824	1.12	78.46	0.896			NG/GM	
WH2098	WH2098	07/21/88	1837	1.12	82.11	0.996			NG/GM	
WH2175	WH2175	07/21/88	1944	1.05	81.81	0.300 U			NG/GM	
WH2177	WH2177	07/22/88	1925	1.01	85.00	0.300 U			NG/GM	
WH2178	WH2178	07/22/88	1926	1.01	81.16	0.300 U			NG/GM	
WH2179	WH2179	07/22/88	1947	0.92*	81.83	0.300 U			NG/GM	
WH2183	WH2183	07/22/88	1959	1.06*	82.42	0.300 U			NG/GM	
WH2184	WH2184	07/22/88	1111	0.79*	81.65	0.300 U			NG/GM	

QUALIFICATION FLAGS:

- * 257/284 RANGE OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

REF. CODES:
1. SUBSTITUTED REF.
2. RECALCULATED REF.

GC/MS/MS WORKSHEET REPORT FORM

SITE: MFR
CASE: 0720
DATE: 07/25/88

SURROGATE CONC 0.1 RF NATIVE 2.109 ION RATIO: 1.005 TO 1.233
INTERNAL STD CONC 1.1 RF SURROGATE 2.08 CORRECTION FACTOR: 0.910

LAB	ENG	EPA	ANALYSIS	SAMPLE	ION 257	ION 259	ION 263	ION 268	RATIO	SURR	RAW	UNITS
SAMPLE #	SAMPLE #	SAMPLE #	DATE	TIME	AMOUNT				257/259	ACC	VALUE	
JUL2121	METHBLANK	METHBLNK	07/21/88	1513	5.00	1	1	126735	349436	1.00	83.42	-0.003 MG/PM
JUL2122	SOILBLANK	DL34575	07/21/88	1524	5.00	1	1	56666	111633	1.00	34.14	-0.003 MG/PM
JUL2123	SOILBPKTE	DL33739	07/21/88	1534	5.00	92890	84319	123373	507993	1.10	85.52	0.804 MG/PM
JUL2124	SOIL PE	PE-A	07/21/88	1545	5.00	63633	45070	129436	381940	1.06	80.87	0.808 MG/PM
JUL2125	WH2034	WH2034	07/21/88	1555	5.01	194159	174293	137408	400666	1.11	81.05	2.133 MG/PM
JUL2126	WH2035	WH2035	07/21/88	1607	5.05	79863	72379	59927	177972	1.10	79.65	1.964 MG/PM
JUL2127	WH2036	WH2036	07/21/88	1618	5.07	77257	71157	63419	183943	1.09	81.44	1.844 MG/PM
JUL2128	WH2042	WH2042	07/21/88	1629	5.08	24220	21338	31279	146363	1.14	82.39	0.453 MG/PM
JUL2129	WH2043	WH2043	07/21/88	1641	5.01	14681	14395	16144	47193	1.07	81.28	1.445 MG/PM
JUL2130	WH2044	WH2044	07/21/88	1652	5.02	28221	23346	52423	150828	1.09	81.96	0.739 MG/PM
JUL2131	WH2083	WH2083	07/21/88	1713	5.16	23736	220159	130274	293903	1.09	79.09	2.702 MG/PM
JUL2132	WH2084	WH2084	07/21/88	1715	5.14	49319	43764	43493	129349	1.13	79.46	1.337 MG/PM
JUL2133	WH2085	WH2085	07/21/88	1726	5.14	54161	58640	72739	267507	1.09	82.33	1.743 MG/PM
JUL2134	WH2089	WH2089	07/21/88	1737	5.05	121459	109460	147474	425046	1.11	82.03	1.053 MG/PM
JUL2135	WH2090	WH2090	07/21/88	1747	5.04	58227	63543	92277	230661	1.08	84.24	1.080 MG/PM
JUL2136	WH2091	WH2091	07/21/88	1759	5.02	155217	145476	191651	551596	1.07	82.75	1.255 MG/PM
JUL2138	WH2097	WH2097	07/21/88	1821	5.10	56844	57559	85949	237140	1.12	79.44	0.876 MG/PM
JUL2139	WH2098	WH2098	07/21/88	1833	5.09	41905	82225	163136	444713	1.12	80.11	0.646 MG/PM
JUL2140	WH2173	WH2177	07/21/88	1844	5.08	24798	23633	211995	621100	1.05	81.81	0.169 MG/PM
JUL2202	WH2177	WH2177	07/22/88	1055	5.15	13603	13497	33176	454311	1.01	55.00	0.073 MG/PM
JUL2203	WH2178	WH2178	07/22/88	1034	5.09	5719	5664	169727	724281	1.01	81.14	0.059 MG/PM
JUL2204	WH2178	WH2178	07/22/88	1047	5.08	6444	6234	183471	554937	0.92	81.37	0.050 MG/PM
JUL2205	WH2181	WH2181	07/22/88	1057	5.01	21142	21134	345201	1653244	1.00	80.42	0.073 MG/PM
JUL2206	WH2184	WH2184	07/22/88	1111	5.07	10765	10950	27496	804247	0.76	81.55	0.049 MG/PM



TMS ANALYTICAL SERVICES, INC.

6376 Maranca Trail
Indianapolis, Indiana 46268
317-291-5697

TOSS FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: KEF
DATE: 0720
OPER: 08/11/EE

AREA #	CLIENT SAMPLE #	ANALYSIS DATE	TIME	NATIVE RATED	SURROGATE ACC	TOSS CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
METHBLANK	METHBLANK	07/25/88	0914	0.68*	87.24	0.300 U			NG/GM	
SQ1LBLANK	QCL14559	07/25/88	0929	0.80*	85.53	0.300 U			NG/GM	
SQ1LSP1KE	QCL35533	07/25/88	0940	1.26	93.17	0.849			NG/GM	
SQ1L PE	PE-A	07/25/88	0950	1.37	84.29	0.836			NG/GM	
WH2185	WH2185	07/25/88	1003	1.00*	84.16	0.300 U			NG/GM	
WH2189	WH2189	07/25/88	1017	0.91*	82.25	0.300 U			NG/GM	
WH2190	WH2190	07/25/88	1030	0.89*	82.95	0.300 U			NG/GM	
WH2191	WH2191	07/25/88	1041	0.75*	83.90	0.300 U			NG/GM	
WH2193	WH2193	07/25/88	1053	0.96*	84.58	0.300 U			NG/GM	
WH2197	WH2197	07/25/88	1104	0.93*	85.16	0.300 U			NG/GM	
WH2199	WH2199	07/25/88	1115	0.89*	85.37	0.300 U			NG/GM	
WH2199	WH2199	07/25/88	1125	0.87*	84.55	0.300 U			NG/GM	
WH2203	WH2203	07/25/88	1135	0.07*	86.33	0.300 U			NG/GM	UNITS OF NG REF SAMPLE
WH2204	WH2204	07/25/88	1145	1.00*	85.58	0.300 U			NG/GM	
WH2205	WH2205	07/25/88	1155	0.29*	87.07	0.300 U			NG/GM	UNITS OF NG REF SAMPLE

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: WEA
CASE: 0720
DATE: 08/31/88

PERCENTAGE COND 0.06 RE NATIVE 2.109 ION RATIO: 1.009 TO 1.231
INTERNAL STD CONC 1.00 RE SURROGATE 2.053 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS		SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SURF ACC	PEW VALUE	UNITS
			DATE	TIME									
JUL2502	METHBLANK	METHBLNK	07/25/88	0414	5.00	1356	2004	178637	491279	0.68	87.2c	-0.017	NG/EM
JUL2503	SOILBLANK	OCLC4559	07/25/88	0929	5.00	1526	1909	111666	312934	0.80	85.63	0.003	NG/EM
JUL2504	SOILSPIKE	OCL35536	07/25/88	0940	5.00	139912	131452	287972	737942	1.06	9C.17	0.849	NG/EM
JUL2505	SOIL PE	PE-A	07/25/88	0950	5.00	128857	120531	244910	693358	1.07	84.29	0.820	NG/EM
JUL2506	WH2185	WH2185	07/25/88	1023	5.04	12283	12268	201105	573538	1.00	84.10	0.028	NG/EM
JUL2507	WH2189	WH2189	07/25/88	1017	5.09	11378	12483	124994	364372	0.91	82.25	0.120	NG/EM
JUL2508	WH2190	WH2190	07/25/88	1030	5.13	14136	15957	253920	734207	0.89	82.95	0.092	NG/EM
JUL2509	WH2191	WH2191	07/25/88	1041	5.17	11235	14144	219037	626210	0.79	81.90	0.071	NG/EM
JUL2510	WH2193	WH2193	07/25/88	1053	5.82	13562	14121	146742	415962	0.96	84.58	0.134	NG/EM
JUL2511	WH2197	WH2197	07/25/88	1164	5.01	17585	18796	260404	789673	0.93	85.16	0.086	NG/EM
JUL2512	WH2198	WH2198	07/25/88	1115	5.01	9715	10768	266689	749418	0.89	85.37	0.042	NG/EM
JUL2513	WH2199	WH2199	07/25/88	1125	5.15	11699	14032	231607	654003	0.83	84.95	0.068	NG/EM
JUL2514	WH2203	WH2203	07/25/88	1135	1.00	422	6094	380335	1057201	0.07	86.33	-0.041	NG/EM
JUL2515	WH2204	WH2204	07/25/88	1145	5.03	1	1	113588	307763	1.09	88.58	-0.023	NG/EM
JUL2516	WH2205	WH2205	07/25/88	1155	1.00	841	2930	326336	899325	0.29	87.07	-0.065	NG/EM



TMS ANALYTICAL SERVICES, INC

6376 Morenci Trail
Indianapolis, Indiana 46268
317-291-5697

TCDD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: REF
CASE: 0702
DATE: 06/01/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	NATIVE RATIO	SURROGATE ACC	TCDD CONC.	PERUN CODE	VALID CODE	UNITS	COMMENTS
METHBLANK	METHBLANK	07/26/88 1416	0.00*	71.40	0.300 U			NG/GM	
SOILBLANK	0CL34494	07/26/88 1427	0.13*	69.73	0.300 U			NG/GM	
SOILSP1VE	0CL35612	07/26/88 1436	1.19	79.44	0.808			NG/GM	
SOIL PE	PE-R	07/26/88 1449	1.18	69.66	0.752			NG/GM	
WH2099	WH2099	07/26/88 1500	1.09	69.45	0.710			NG/GM	
WH2206	WH2206	07/26/88 1510	1.15	70.99	1.890			NG/GM	
WH2207	WH2207	07/26/88 1522	1.00*	69.79	0.300 U			NG/GM	
WH2208	WH2208	07/26/88 1533	1.18	70.58	1.702			NG/GM	
WH2209	WH2209	07/26/88 1549	1.00*	70.81	0.300 U			NG/GM	
WH2210	WH2210	07/26/88 1559	0.27*	70.63	0.300 U			NG/GM	
WH2212	WH2212	07/26/88 1610	0.57*	71.04	0.300 U			NG/GM	
WH2213	WH2213	07/26/88 1622	1.00*	72.33	0.300 U			NG/GM	
WH2214	WH2214	07/26/88 1634	0.33*	71.36	0.300 U			NG/GM	
WH2215	WH2215	07/26/88 1645	1.19	71.73	0.300 U			NG/GM	

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

GC/MS WORKSHEET REPORT FORM

SITE: NEP
CASE: 0722
DATE: 08/01/88

SURROGATE CONC 0.06 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.610

NO	CLIENT	ANALYSIS	SAMPLE	ION 257	ION 259	ION 263	ION 268	RATIO	SUPP	RAW	UNITS
SAMPLE #	AER #	SAMPLE #	DATE TIME	AMOUNT				257/259	ACC	VALUE	
JUL2609	METHBLANK	METHBLANK	07/26/88 1416	5.00	154	6734	265215	892519	0.02	71.40	-0.005 NG/GM
JUL2610	SOILBLANK	OCL34694	07/26/88 1427	5.00	926	6913	153599	665997	0.13	69.73	0.065 NG/GM
JUL2611	SOILSPIKE	OCL35612	07/26/88 1438	5.00	129599	160238	332613	998637	1.18	79.44	0.898 NG/GM
JUL2612	SOIL PE	PE-A	07/26/88 1449	5.00	113507	96467	187771	642724	1.19	69.66	0.752 NG/GM
JUL2613	WH2099	WH2099	07/26/88 1500	5.22	49849	45847	86495	297033	1.09	69.45	0.710 NG/GM
JUL2614	WH2206	WH2206	07/26/88 1510	5.33	162897	141235	106463	353989	1.15	70.99	1.390 NG/GM
JUL2615	WH2207	WH2207	07/26/88 1522	5.22	1	1	85837	295192	1.00	69.79	-0.022 NG/GM
JUL2616	WH2208	WH2208	07/26/88 1533	5.06	234422	195024	175742	588954	1.18	70.58	1.702 NG/GM
JUL2617	WH2209	WH2209	07/26/88 1542	5.17	1	1	168200	570082	1.00	70.81	-0.022 NG/GM
JUL2618	WH2210	WH2210	07/26/88 1559	5.14	2625	8639	311901	1059333	0.27	70.63	0.064 NG/GM
JUL2619	WH2212	WH2212	07/26/88 1610	5.34	4358	7630	320735	1083443	0.57	71.04	0.093 NG/GM
JUL2620	WH2213	WH2213	07/26/88 1622	5.25	62454	62314	658388	2182360	1.00	72.33	0.107 NG/GM
JUL2621	WH2214	WH2214	07/26/88 1634	5.35	3008	9203	417041	1402529	0.33	71.36	-0.002 NG/GM
JUL2622	WH2215	WH2215	07/26/88 1645	5.23	105664	96437	441986	1475111	1.10	71.73	0.289 NG/GM



TMS ANALYTICAL SERVICES, INC.

6576 Norcross Trail
Indianapolis, Indiana 46265
317-291-5697

TOO FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: MEF
CASE: 0724
DATE: 08/15/83

APER #	CLIENT SAMPLE #	ANALYSIS DATE	NATIVE TIME	SURROGATE RATIO	TCDB ACC	RERUN CONC.	VALID CODE	UNITS	COMMENTS
	METHBLANK	METHBLANK	07/27/83	1525	0.27*	57.25	0.300 U	MG/GR	
	SOIL BLANK	OCL34322	07/27/83	1553	0.25*	55.64	0.300 U	MG/GR	
	SOIL SPIKE	OCL35612	07/27/83	1603	1.17	77.56	0.820	MG/GR	
	SOIL PE	FE-R	07/27/83	1614	1.02	66.64	0.746	MG/GR	
	WH2220	WH2220	07/27/83	1625	1.05	55.84	0.300 U	MG/GR	
	WH2221	WH2221	07/27/83	1657	1.16	69.57	2.705	MG/GR	
	WH2224	WH2224	07/27/83	1707	1.19	71.27	0.710	MG/GR	
	WH2225	WH2225	07/27/83	1720	1.17	70.88	2.334	MG/GR	
	WH2227	WH2227	07/27/83	1730	0.43*	71.29	0.300 U	MG/GR	
	WH2228	WH2228	07/27/83	1741	0.34*	70.72	0.300 U	MG/GR	
	WH2229	WH2229	07/27/83	1751	0.81*	71.15	0.300 U	MG/GR	
	WH2230	WH2230	07/27/83	1801	0.32*	72.60	0.300 U	MG/GR	
	WH2232	WH2232	07/27/83	1812	0.47*	71.09	0.300 U	MG/GR	
	WH2233	WH2233	07/27/83	1823	0.54*	72.06	0.300 U	MG/GR	
	WH2234	WH2234	07/27/83	1833	0.75*	71.53	0.300 U	MG/GR	
	WH2235	WH2235	07/27/83	1844	6.94*	71.29	0.300 U	MG/GR	
	WH2236	WH2236	07/27/83	1855	0.41*	73.51	0.300 U	MG/GR	
	WH2237	WH2237	07/27/83	1905	0.49*	74.69	0.300 U	MG/GR	
	WH2238	WH2238	07/27/83	1917	0.37*	71.93	0.300 U	MG/GR	
	WH2240	WH2240	07/27/83	2011	1.91	73.55	0.580	MG/GR	UNITS ARE MG/SAMPLE
	WH2241	WH2241	07/27/83	1929	0.52*	72.63	0.300 U	MG/GR	
	WH2242	WH2242	07/27/83	1950	0.07*	71.59	0.300 U	MG/GR	
	WH2243	WH2243	07/27/83	2000	0.69*	72.06	0.300 U	MG/GR	
	WH2222	WH2222	07/27/83	1646	1.16	69.57	2.840	MG/GR	

QUALIFICATION FLAGS:

- * 257/258 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:
A AUTOMATIC RERUN
R REQUESTED RERUN

SOILS PER AIR SHEET REPORT FORM

SITE: PER
CASE: 0724
DATE: 08/01/83

SURROGATE CONC 0.06 RF NATIVE 2.109 ION FATIG: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.687 CORRECTION FACTOR: 0.610

LAB	CLIENT	ANALYSIS	SAMPLE	ION 257	ION 259	ION 267	ION 268	RATIO	SUFF	RAW	UNITS	
SAMPLE #	AREA #	SAMPLE #	DATE	TIME	AMOUNT			257/259	ACC	VALUE		
JUL2708	METHBLANK	METHBLANK	07/27/88	1525	5.00	2517	7694	336444	1260593	0.33	67.25	-0.003 MG/EM
JUL2709	SOILBLANK	DCL34322	07/27/88	1523	5.00	2570	8164	329847	1153258	0.32	69.44	-0.091 MG/EM
JUL2710	SOILSPIKE	DCL35612	07/27/88	1603	5.00	254452	242839	482637	1484929	1.17	77.56	0.829 MG/EM
JUL2711	SOIL PE	PE-A	07/27/88	1614	5.00	122783	101906	199367	452449	1.21	69.64	0.746 MG/EM
JUL2712	WH2220	WH2220	07/27/88	1625	5.04	54380	51987	362779	1242772	1.05	68.84	0.175 MG/EM
JUL2715	WH2221	WH2221	07/27/88	1657	5.26	374561	323032	171221	576692	1.16	69.27	2.705 MG/EM
JUL2716	WH2224	WH2224	07/27/88	1767	5.36	187484	159321	315142	1054365	1.15	71.27	0.716 MG/EM
JUL2717	WH2226	WH2226	07/27/88	1720	5.13	524021	446507	286506	950995	1.17	76.88	2.736 MG/EM
JUL2718	WH2227	WH2227	07/27/88	1730	5.40	4479	15531	272133	915874	0.43	71.29	0.032 MG/EM
JUL2719	WH2228	WH2228	07/27/88	1741	5.35	7371	8812	217742	736664	0.84	70.72	0.027 MG/EM
JUL2720	WH2229	WH2229	07/27/88	1721	5.26	5531	6815	197552	664133	0.81	71.15	0.029 MG/EM
JUL2721	WH2230	WH2230	07/27/88	1801	5.27	6372	10781	168925	558091	0.82	72.80	0.056 MG/EM
JUL2722	WH2232	WH2232	07/27/88	1812	5.39	2654	5677	189441	639441	0.47	71.09	0.007 MG/EM
JUL2723	WH2233	WH2233	07/27/88	1823	5.10	16763	17743	225995	752138	0.94	72.06	0.064 MG/EM
JUL2724	WH2234	WH2234	07/27/88	1833	5.16	3940	5258	137242	460332	0.75	71.53	0.024 MG/EM
JUL2725	WH2235	WH2235	07/27/88	1844	5.01	12213	12979	153566	515818	0.94	71.39	0.093 MG/EM
JUL2726	WH2236	WH2236	07/27/88	1855	5.25	1242	3020	81332	245506	0.41	73.51	0.015 MG/EM
JUL2727	WH2237	WH2237	07/27/88	1905	5.10	1872	4657	90097	239428	0.40	74.69	0.030 MG/EM
JUL2728	WH2238	WH2238	07/27/88	1917	5.03	1060	2852	140789	469727	0.37	71.93	-0.003 MG/EM
JUL2733	WH2240	WH2240	07/27/88	2011	1.00	13873	13693	144375	470640	1.01	75.55	0.556 MG/EM
JUL2729	WH2241	WH2241	07/27/88	1928	5.24	1827	3640	244766	808720	0.50	72.63	-0.007 MG/EM
JUL2731	WH2242	WH2242	07/27/88	1950	5.11	1	2848	116327	339972	0.00	71.59	-0.005 MG/EM
JUL2732	WH2243	WH2243	07/27/88	2000	5.10	301	3285	127084	423240	0.09	72.06	-0.003 MG/EM
JUL2714	WH2222	WH2222	07/27/88	1644	5.01	374561	323032	171221	576692	1.16	69.57	2.846 MG/EM

TCDD FINAL DATA REPORT SHEET

FILE RECEIVED DATE: ✓
 FILE RECEIVED TIME:

SITE: HEP
 CASE: 2240
 DATE: 08/31/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE	ANALYSIS TIME	NATIVE RATIO	SURROGATE ACC	TCDD CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
METHBLANK	METHBLNK	07/27/88	1535	0.33*	67.25	0.300 U			MG/GM	
SOILBLANK	OCL34322	07/27/88	1553	0.32*	68.64	0.300 U			MG/GM	
SOILSPIKE	OCL35612	07/27/88	1603	1.17	77.56	0.820			MG/GM	
SOIL PE	PE-A	07/27/88	1614	1.21	68.64	0.746			MG/GM	
WH2240	WH2240	08/24/88	1401	1.01	78.97	0.612			MG/GM	UNITS OF MG PER SAMPLE

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: HER
CASE: 2240
DATE: 08/22/88

IPROGATE CONC 0.06 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.010

LAB	AREA #	CLIENT	ANALYSIS	SAMPLE	ION 257	ION 259	ION 263	ION 268	RATIO	SURR	RAW	UNITS
SAMPLE #		SAMPLE #	DATE TIME	AMOUNT				257/259	ACC	VALUE		
JUL2708	METHBLANK	METHBLMK	07/27/88 1535	5.00	2517	7494	336444	1200593	0.33	67.25	-0.003	NG/GH
UL2709	SOILBLANK	OCL34322	07/27/88 1535	5.00	2570	8164	329847	1153258	0.32	68.64	-0.001	NG/GH
UL2710	SOILSPIKE	OCL35612	07/27/88 1605	5.00	284452	242839	482637	1484029	1.17	77.56	0.820	NG/GH
JUL2711	SOIL PE	PE-A	07/27/88 1614	5.00	122783	101806	199367	692449	1.21	68.64	0.746	NG/GH
UB1809	WH2240	WH2240	08/24/88 1401	1.00	24750	24456	264564	803233	1.01	78.97	0.612	NG/GH



TMS ANALYTICAL SERVICES, INC.

6376 Morenci Trail
Indianapolis, Indiana 46268
317-291-5697

TOCD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: MEF
CASE: 0102
DATE: 08/03/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE	NATIVE TIME	FATIG	SURROGATE APC	TOCD CONC.	PERUN CODE	VALID CODE	UNITS	COMMENTS
METHELAN	METHAN	07/28/88	1116	0.79*	78.51	0.308 U			NS/GM	
SOILBLAN	00L74551	07/28/88	1127	0.15*	73.71	1.288 U			NS/GM	
SOILSFLINE	00L75513	07/28/88	1128	1.15	64.77	0.607			NS/GM	
SOIL FE	FE-A	07/28/88	1149	1.10	71.72	0.742			NS/GM	
W-2244	W-2244	07/28/88	1317	0.03*	75.97	0.291 U			NS/GM	
W-2245	W-2245	07/28/88	1323	0.22*	70.47	0.269 U			NS/GM	
W-2246	W-2246	07/28/88	1374	0.33*	69.05	0.307 U			NS/GM	
W-2247	W-2247	07/28/88	1344	0.55*	65.72	0.364 U			NS/GM	
W-2248	W-2248	07/28/88	1355	1.15	69.35	0.723			NS/GM	
W-2250	W-2250	07/28/88	1405	1.17	66.46	0.754			NS/GM	
W-2252	W-2252	07/28/88	1416	1.17	66.07	0.659			NS/GM	
W-2256	W-2256	07/28/88	1427	0.67*	67.91	0.261 U			NS/GM	UNITS OF NG PER SAMPLE
W-2257	W-2257	07/28/88	1437	1.2*	66.91	0.74			NS/GM	
W-2258	W-2258	07/28/88	1446	1.16	67.77	0.476			NS/GM	
W-2259	W-2259	07/28/88	1453	1.17	65.01	0.911			NS/GM	
W-2263	W-2263	07/28/88	1512	1.14	63.77	0.417			NS/GM	
W-2264	W-2264	07/28/88	1515	1.12	69.47	0.791 U			NS/GM	
W-2265	W-2265	07/28/88	1539	0.05*	69.71	0.301 U			NS/GM	
W-2267	W-2267	07/28/88	1541	1.17	66.91	0.768 U			NS/GM	
W-2271	W-2271	07/28/88	1551	1.15	66.91	0.705			NS/GM	
W-2272	W-2272	07/28/88	1601	1.15	70.71	0.495			NS/GM	
W-2277	W-2277	07/28/88	1612	1.16	69.44	0.554			NS/GM	
W-2277	W-2277	07/28/88	1622	1.11	71.61	0.539			NS/GM	
W-2278	W-2278	07/28/88	1674	1.15	70.65	0.712			NS/GM	

QUALIFICATION FLAG:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

PERUN CODES:
A AUTOMATIC PERUN
F REQUESTED PERUN

SITE: PEP
 CASE: 4706
 DATE: 08/01/88

ANALYTE CONC 0.06 RP METHOD 1.149 ION RATIO: 1.065 TO 1.233
 INTERNAL STD CONC 1.05 RP SUBSTRATE 1.010 CORRECTION FACTOR: 0.010

SE SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSE DATE	TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SURF ACC	CONC VALUE	UNITS
JUL2200	METHBLANK	METHBLANK	07/28/88	1114	5.00	2105	2181	199567	609432	0.79	78.56	-0.005 NG/CM	
JUL2203	SOILBLANK	SOILBLANK	07/28/88	1127	5.00	461	2958	137727	446799	0.15	75.98	-0.005 NG/CM	
JUL2204	SOILSP1VE	SOILSP568	07/28/88	1135	5.00	91435	79570	166504	491218	1.15	60.77	0.605 NG/CM	
JUL2205	SOIL PE	PE-A	07/28/88	1145	5.00	51029	46268	69460	301726	1.16	76.72	0.742 NG/CM	
JUL2206	WH2244	WH2244	07/28/88	1311	5.20	1	3429	94750	302337	0.00	75.07	0.004 NG/CM	
JUL2207	WH2245	WH2245	07/28/88	1322	5.15	472	2126	106770	351333	0.22	72.93	-0.005 NG/CM	
JUL2208	WH2246	WH2246	07/28/88	1334	5.05	1927	6033	162626	573493	0.33	68.05	0.010 NG/CM	
JUL2209	WH2247	WH2247	07/28/88	1344	5.10	1973	3395	115349	402758	0.58	68.72	0.009 NG/CM	
JUL2210	WH2249	WH2249	07/28/88	1355	5.12	59156	30505	98251	337651	1.15	69.39	0.725 NG/CM	
JUL2211	WH2250	WH2250	07/28/88	1405	5.04	62730	73130	125206	448905	1.13	66.46	0.774 NG/CM	
JUL2212	WH2252	WH2252	07/28/88	1414	5.00	95469	81575	134447	470908	1.17	68.00	0.869 NG/CM	
JUL2213	WH2256	WH2256	07/28/88	1427	1.00	2780	4868	221913	784110	0.57	67.91	0.001 NG/CM	
JUL2214	WH2257	WH2257	07/28/88	1437	5.10	141014	117223	99311	340570	1.20	68.91	1.740 NG/CM	
JUL2215	WH2258	WH2258	07/28/88	1448	5.04	117824	101550	97316	142874	1.16	67.23	1.476 NG/CM	
JUL2216	WH2259	WH2259	07/28/88	1458	5.11	121602	107701	156805	540780	1.13	69.01	0.961 NG/CM	
JUL2217	WH2263	WH2263	07/28/88	1505	5.15	62626	72327	232144	811764	1.14	68.37	0.417 NG/CM	
JUL2218	WH2264	WH2264	07/28/88	1519	5.12	30740	27517	163128	565685	1.12	69.07	0.216 NG/CM	
JUL2219	WH2266	WH2266	07/28/88	1530	5.05	1	1181	87698	303437	0.00	69.36	-0.014 NG/CM	
JUL2220	WH2267	WH2267	07/28/88	1541	5.07	20609	18760	112397	390372	1.10	68.96	0.215 NG/CM	
JUL2221	WH2271	WH2271	07/28/88	1551	5.13	107640	91071	177138	611566	1.18	69.06	0.729 NG/CM	
JUL2222	WH2272	WH2272	07/28/88	1601	5.13	164189	137705	285663	972592	1.15	70.03	0.695 NG/CM	
JUL2223	WH2273	WH2273	07/28/88	1612	5.10	80858	77905	184488	642999	1.18	69.24	0.554 NG/CM	
JUL2224	WH2277	WH2277	07/28/88	1622	5.20	70978	63942	161953	545572	1.11	70.52	0.539 NG/CM	
JUL2225	WH2278	WH2278	07/28/88	1634	5.01	97452	82097	173807	575421	1.19	72.05	0.716 NG/CM	



TALS ANALYTICAL SERVICES, INC.

6376 Mendenhall Trail
Indianapolis, Indiana 46269
317-291-5697

TOTAL FORMAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HEP
CASE: 6729
DATE: 08/01/88

APER #	CLIENT SAMPLE #	ANALYSIS DATE TIME	NATIVE RATIO	SURROGATE RATIO	TCDD CONC.	RELM CODE	VALID CODE	UNITS	COMMENT
METHBLANK	METHBLNK	07/29/88 1250	0.00*	85.30	0.300 U			NG/GM	
SOILBLANK	OCL34506	07/29/88 1304	0.41*	73.83	0.300 U			NG/GM	
SOILSPIKE	OCL35549	07/29/88 1315	1.21	79.40	0.779			NG/GM	
SOIL PE	PE-B	07/29/88 1328	1.19	70.01	3.550			NG/GM	
WM2280	WM2280	07/29/88 1342	0.29*	69.45	0.300 U			NG/GM	UNITS OF NG PER SAMPLE
WM2281	WM2281	07/29/88 1356	0.27*	69.55	0.300 U			NG/GM	UNITS OF NG PER SAMPLE
WM2282	WM2282	07/29/88 1408	1.11	66.78	0.575			NG/GM	

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RELM CODES:

- A AUTOMATIC RELM
- R REQUESTED RELM

ELEMENTS ANALYSIS REPORT FOR

SITE: HEP
 CASE: 0724
 DATE: 08/01/88

ELEMENTS CONC 0.96 ANALYSIS 1.115 ION PAID: 1.003 TO 1.003
 INTERNAL STI CONC 1.06 RE ELEMENTS 1.063 CORRECTION FACTOR: 0.010

L#	AREA #	CLIENT	ANALYSIS	SAMPLE	ION 257	ION 259	ION 263	ION 269	PAID	SUPP	RAW	UNITS
SAMPLE #		SAMPLE #	DATE	TIME	AMOUNT				257/259	ACC	VALUE	
JUL2902	METHELANK	METHELM	07/29/88	1250	5.00	1	5413	317701	915132	0.00	63.32	-0.009 NG/GM
JUL2903	SOILELANK	BCL34506	07/29/88	1304	5.00	2462	4479	242622	798753	0.41	73.26	0.005 NG/GM
JUL2904	SOILSPIKE	BCL35569	07/29/88	1312	5.00	94455	77816	169945	509400	1.21	75.40	0.779 NG/GM
JUL2905	SOIL PE	PE-B	07/29/88	1328	5.00	38172	36836	140547	534177	1.19	70.01	3.550 NG/GM
JUL2906	WH2280	WH2280	07/29/88	1342	1.00	2222	7992	335698	1159930	0.28	69.45	-0.010 NG/GM
JUL2907	WH2281	WH2281	07/29/88	1356	1.00	1342	4867	181852	627452	0.27	69.55	0.003 NG/GM
JUL2908	WH2282	WH2282	07/29/88	1408	5.24	28346	25628	57278	204757	1.11	66.78	0.575 NG/GM

TOCO FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HF
CASE: 6728
DATE: 08/12/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE	ANALYSIS TIME	RATIO 324/322	RATIO 332/334	SURROGATE ACC	TOCO CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
METHBLAN	METHBLAN	08/01/88	2112	1.09*	0.75	72.02	0.300	U		NS/GM	
SOILBLAN	SOILBLAN	08/01/88	2146	1.00*	0.75	72.40	0.300	U		NS/GM	
SOILSPKE	SOILSPKE	08/01/88	2219	0.78	0.75	80.56	0.818			NS/GM	
PE-A	PE-A	08/01/88	2252	0.75	0.75	71.74	0.785			NS/GM	
WH2060	WH2060	08/01/88	2324	0.77	0.79	72.11	0.975			NS/GM	
WH2061	WH2061	08/02/88	0030	0.65	0.75	80.20	1.627			NS/GM	
WH2105	WH2105	08/02/88	0074	0.77	0.80	72.12	0.385			NS/GM	
WH2106	WH2106	08/02/88	0107	0.76	0.78	72.29	0.424			NS/GM	
WH2110	WH2110	08/02/88	0141	0.75	0.80	72.34	0.430			NS/GM	
WH2126	WH2126	08/02/88	0214	0.75	0.80	71.75	3.871			NS/GM	
WH2127	WH2127	08/02/88	0246	0.77	0.82	70.78	2.094			NS/GM	
WH2128	WH2128	08/02/88	0321	0.75	0.75	72.23	3.139			NS/GM	
WH2287	WH2287	08/02/88	0425	0.76	0.75	71.92	0.300	U		NS/GM	
WH2288	WH2288	08/02/88	0502	0.85	0.80	71.13	0.300	U		NS/GM	
WH2305	WH2305	08/02/88	0536	0.78	0.79	75.10	3.077			NS/GM	
WH2306	WH2306	08/02/88	0609	0.79	0.79	71.65	0.949			NS/GM	
WH2307	WH2307	08/02/88	0642	0.77	0.80	71.34	2.502			NS/GM	

QUALIFICATION FLAGS:

- * 324/322 OR 332/334 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

SPECIAL INSTRUCTIONS IF ANY:

LABORATORY REPORT

SITE: REF
 CASE: 0205
 DATE: 08/05/05

ANALYTE COND 0.76 EFF METHOD 1.116
 INTERNAL STD CONC 1.005 REF SUBSTRATE 1.000

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	SAMPLE AMOUNT	104 320	104 321	104 325	104 330	104 334	941C 320/322	941D 322/334	DUAR ADD	5.0 VALUE
4HERC03A	METHBLANK	METHBLANK	5.00	1	1	169174	434547	548437	1.00*	0.79	72.92	0.004 NG/6M
4HERC04A	SOILBLANK	SOILBLANK	5.00	1	1	122332	280007	352568	1.00*	0.79	72.40	0.009 NG/6M
4HERC05A	SOILSPIKE	SOILSPIKE	5.00	44433	57233	122905	247544	311963	0.78	0.79	30.55	0.515 NG/6M
4HERC06A	PE-A	PE-A	5.00	50350	66734	128558	255546	375909	0.75	0.79	71.34	0.765 NG/6M
4HERC07A	WH2060	WH2060	5.06	91316	116079	164954	421735	532976	0.77	0.79	72.11	0.976 NG/6M
4HERC08A	WH2061	WH2061	5.07	6628	5765	9604	19213	23591	0.68	0.75	81.20	1.427 NG/6M
4HERC09A	WH2108	WH2108	5.04	15583	20229	81430	184631	211349	0.77	0.80	73.12	0.285 NG/6M
4HERC10A	WH2109	WH2109	5.21	17384	22741	60330	179743	229553	0.76	0.78	73.29	0.424 NG/6M
4HERC11A	WH2110	WH2110	5.04	29763	39818	142102	320491	403066	0.75	0.80	73.34	0.430 NG/6M
4HERC12A	WH2126	WH2126	5.20	85198	112977	43453	98460	123163	0.75	0.80	71.75	3.871 NG/6M
4HERC13A	WH2127	WH2127	5.07	110175	143793	103102	239274	299250	0.77	0.80	70.78	2.094 NG/6M
4HERC14A	WH2128	WH2128	5.00	169164	217412	108950	243872	310731	0.78	0.79	72.23	3.139 NG/6M
4HERC16A	WH2287	WH2287	5.06	8758	11503	141580	324317	412133	0.76	0.79	71.92	0.122 NG/6M
4HERC17A	WH2289	WH2289	5.03	9838	11029	82418	145378	182600	0.89	0.80	71.13	0.285 NG/6M
4HERC18A	WH2305	WH2305	5.04	70570	90729	47786	103435	130519	0.78	0.79	75.10	3.077 NG/6M
4HERC19A	WH2306	WH2306	5.19	64145	81540	128131	294204	371468	0.79	0.79	71.85	0.949 NG/6M
4HERC20A	WH2307	WH2307	5.03	114683	148568	91033	208452	262280	0.77	0.80	71.34	2.503 NG/6M

TCCD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: MER
CASE: 0803
DATE: 08/09/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	RATIO 320/322	RATIO 332/334	SURROGATE ACC	TCCD CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
METHBLANK	METHBLNK	08/02/88 1054	1.00*	0.79	71.96	0.300 U			NG/GM	
SOILBLANK	SOILBLNK	08/02/88 1127	1.00*	0.79	73.99	0.300 U			NG/GM	
SOILSPIKE	SOILSPKE	08/02/88 1201	0.76	0.80	62.67	0.798			NG/GM	
PEA-2	PEA-2	08/02/88 1234	0.78	0.79	74.17	0.670			NG/GM	
WH2311	WH2311	08/02/88 0806	0.74	0.79	73.33	0.300 U			NG/GM	
WH2312	WH2312	08/02/88 0840	0.61*	0.80	76.06	0.300 U			NG/GM	
WH2313	WH2313	08/02/88 0913	0.70	0.81	71.97	0.519			NG/GM	
WH2314	WH2314	08/02/88 0947	0.76	0.77	76.44	2.849			NG/GM	
WH2316	WH2316	08/02/88 1020	0.77	0.80	71.39	2.814			NG/GM	
WH2317	WH2317	08/02/88 1308	0.76	0.80	72.81	2.875			NG/GM	
WH2318	WH2318	08/02/88 1342	0.79	0.80	74.79	3.183			NG/GM	
WH2319	WH2319	08/02/88 1415	1.00*	0.79	70.23	0.300 U			NG/GM UNITS OF NG PER SAMPLE	
WH2320	WH2320	08/02/88 1609	1.00*	0.81	71.22	0.300 U			NG/GM UNITS OF NG PER SAMPLE	
WH2063	WH2063	08/02/88 1522	0.81	0.77	72.99	1.004			NG/GM	

QUALIFICATION FLAGS:

- * 320/322 OR 332/334 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

SPECIAL INSTRUCTIONS (IF ANY):

LR/BC/MS WORKSHEET REPORT FORM

SITE: HER
CASE: 0803
DATE: 08/09/88

SURROGATE CONC 0.06 RRF NATIVE 1.110
INTERNAL STD CONC 1.05 RRF SURROGATE 1.336

LAB SAMPLE #	CLIENT AREA #	SAMPLE SAMPLE #	AMOUNT	ION 320	ION 322	ION 328	ION 332	ION 334	RATIO 320/322	RATIO 332/334	SURR ACC	RAW VALUE
4HERF26A	METHBLANK	METHBLNK	5.00	1	1	159695	365506	465351	1.00*	0.79	71.96	0.000 NG/GM
4HERF27A	SOILBLANK	SOILBLNK	5.00	1	1	83438	186820	235363	1.00*	0.79	73.99	0.000 NG/GM
4HERF28A	SOILSPKKE	SOILSPKE	5.00	46391	60980	134337	268463	337430	0.76	0.80	82.67	0.798 NG/GM
4HERF29A	PEA-2	PEA-2	5.00	33333	42749	101636	225270	285829	0.78	0.79	74.17	0.670 NG/GM
4HERF21A	WH2311	WH2311	5.07	12739	17131	114987	257797	328453	0.74	0.79	73.33	0.226 NG/GM
4HERF22A	WH2312	WH2312	5.15	6824	11233	57509	125113	157471	0.61*	0.80	76.06	0.279 NG/GM
4HERF23A	WH2313	WH2313	5.03	20801	29847	84270	194982	241966	0.70	0.81	71.97	0.519 NG/GM
4HERF24A	WH2314	WH2314	5.18	78372	102959	57408	120279	156344	0.76	0.77	76.44	2.849 NG/GM
4HERF25A	WH2316	WH2316	5.08	117534	152641	82522	189149	236416	0.77	0.80	71.39	2.814 NG/GM
2HERF30A	WH2317	WH2317	5.15	219649	287752	152631	342208	429255	0.76	0.80	72.81	2.875 NG/GM
4HERF31A	WH2318	WH2318	5.05	139560	177401	90291	197825	246168	0.79	0.80	74.79	3.183 NG/GM
4HERF32A	WH2319	WH2319	1.00	1	1	202797	477660	603333	1.00*	0.79	70.23	0.000 NG/GM
5HERA01A	WH2320	WH2320	1.00	1	1	117866	272020	342530	1.00*	0.81	71.22	0.000 NG/GM
4HERF34A	WH2063	WH2063	5.07	77470	96079	150473	334432	432881	0.81	0.77	72.99	1.004 NG/GM

TCCD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: WER
CASE: 0802
DATE: 08/08/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	RATIO 320/322	RATIO 332/334	SURROGATE ACC	TCCD CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
METHBLANK	METHBLNK	08/03/88 1851	1.00*	0.80	71.28	0.300 U			NG/GM	
SOILBLANK	SOILBLNK	08/03/88 1925	1.00*	0.80	72.07	0.300 U			NG/GM	
SOILSPIKE	SOILSPKE	08/03/88 1959	0.79	0.80	81.93	0.821			NG/GM	
PE-B	PE -B	08/03/88 2033	0.79	0.81	70.03	3.630			NG/GM	
WH2260	WH2260	08/03/88 2107	0.76	0.79	72.28	0.867			NG/GM	
WH2261	WH2261	08/03/88 2141	0.76	0.79	70.23	1.476			NG/GM	
WH2262	WH2262	08/03/88 2215	0.81	0.79	70.51	1.255			NG/GM	

QUALIFICATION FLAGS:

- * 320/322 OR 332/334 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

SPECIAL INSTRUCTIONS (IF ANY):

LR/GC/MS WORKSHEET REPORT FORM

SITE: HER
 CASE: 0902
 DATE: 08/08/88

SURRGATE CONC 0.06 RRF NATIVE 1.110
 INTERNAL STD CONC 1.05 RRF SURRGATE 1.336

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	SAMPLE AMOUNT	ION 320	ION 322	ION 328	ION 332	ION 334	RATIO 320/322	RATIO 332/334	SURR REC	RAW VALUE	
0803C04A		METHBLANK	METHBLNK	5.00	1	1	120424	281155	351348	1.00*	0.80	71.28	0.000 NG/GM
0803C05A		SOILBLANK	SOILBLNK	5.00	1	1	119050	275187	343236	1.00*	0.80	72.07	0.000 NG/GM
0803C06A		SOILSPIKE	SOILSPKE	5.00	73184	92597	199828	405225	504122	0.79	0.80	81.93	0.821 NG/GM
0803C07A		PE-B	PE -B	5.00	220666	280492	118653	277326	343514	0.79	0.81	70.03	3.630 NG/GM
0803C08A		NH2260	NH2260	4.98	41051	54016	96237	219336	276601	0.76	0.79	72.28	0.867 NG/GM
0803C09A		NH2261	NH2261	5.00	65240	86225	87456	204175	257902	0.76	0.79	70.23	1.476 NG/GM
0803C10A		NH2262	NH2262	5.03	79544	98401	120450	280847	353970	0.81	0.79	70.51	1.255 NG/GM

TCDD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HER
CASE: 0805
DATE: 08/07/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE	ANALYSIS TIME	NATIVE RATIO	SURROGATE ACC	TCDD CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
METHBLANK	METHBLNK	08/08/88	1454	1.00*	68.75	0.300 U			NG/GM	
SOILBLANK	DCL34506	08/08/88	1506	0.59*	66.98	0.300 U			NG/GM	
SOILSPIKE	DCL35539	08/08/88	1517	1.17	77.70	0.804			NG/GM	
SOIL PE	PE-A	08/08/88	1528	1.17	66.45	0.711			NG/GM	
WH2293	WH2293	08/08/88	1538	1.16	62.84	0.387			NG/GM	
WH2294	WH2294	08/08/88	1548	1.17	63.74	0.300 U			NG/GM	
WH2295	WH2295	08/08/88	1601	1.11	66.15	0.300 U			NG/GM	
WH2308	WH2308	08/08/88	1611	1.19	63.45	0.603			NG/GM	
WH2309	WH2309	08/08/88	1622	1.07	64.11	0.300 U			NG/GM	
WH2310	WH2310	08/08/88	1634	1.22	65.02	0.894			NG/GM	
WH1423	WH1423	08/08/88	1646	0.19*	66.65	0.300 U			NG/GM	UNITS OF NG PER SAMPLE

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: MER
CASE: 0805
DATE: 08/07/88

SURROGATE CONC 0.06 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SURR ACC	RAW VALUE	UNITS
AUG0812	METHBLANK	METHBLNK	08/08/88 1454	5.00	1	1	103217	360345	1.00	68.75	-0.023	NS/GM
AUG0813	SOILBLANK	DCL34506	08/08/88 1506	5.00	7380	12445	304305	1090034	0.59	66.98	0.020	NS/GM
AUG0814	SOILSPIKE	DCL35539	08/08/88 1517	5.00	173952	148498	301323	924956	1.17	77.70	0.804	NS/GM
AUG0815	SOIL PE	PE-A	08/08/88 1528	5.00	120924	193202	201746	723967	1.17	66.45	0.711	NS/GM
AUG0816	WH2293	WH2293	08/08/88 1538	5.01	76094	85813	215423	819656	1.16	62.84	0.387	NS/GM
AUG0817	WH2294	WH2294	08/08/88 1548	5.03	51984	44618	189415	711095	1.17	63.74	0.297	NS/GM
AUG0818	WH2295	WH2295	08/08/88 1601	5.10	71095	63850	345295	1250074	1.11	66.15	0.229	NS/GM
AUG0819	WH2308	WH2308	08/08/88 1611	5.07	103480	87260	189473	712503	1.19	63.45	0.603	NS/GM
AUG0820	WH2309	WH2309	08/08/88 1622	5.09	48662	45372	188219	702602	1.07	64.11	0.289	NS/GM
AUG0821	WH2310	WH2310	08/08/88 1634	5.09	69457	56817	87734	321042	1.22	65.02	0.894	NS/GM
AUG0822	WH1423	WH1423	08/08/88 1646	1.00	1395	7388	324936	1169996	0.19	66.65	-0.025	NS/GM

011027

TCCD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HER
CASE: 0811
DATE: 08/10/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE	NATIVE TIME	RATIO	SURROGATE ACC	TCCD CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
METHBLANK	METHBLANK	08/11/88	1613	1.00*	87.82	0.300 U			MG/GH	
SOILBLANK	DCL34504	08/11/88	1628	0.65*	80.93	0.300 U			MG/GH	
SOILSPIKE	DCL35562	08/11/88	1642	1.13	89.52	0.788			MG/GH	
SOIL PE	PE-A	08/11/88	1653	1.15	77.50	0.741			MG/GH	
WH2321	WH2321	08/11/88	1705	1.15	73.82	1.775			MG/GH	
WH2322	WH2322	08/11/88	1716	1.16	75.84	3.682			MG/GH	
WH2324	WH2324	08/11/88	1727	1.18	77.38	2.388			MG/GH	
WH2325	WH2325	08/11/88	1738	1.17	70.93	2.654			MG/GH	
WH2326	WH2326	08/11/88	1749	1.18	71.47	10.427			MG/GH	
WH2327	WH2327	08/11/88	1759	1.17	70.86	5.985			MG/GH	
WH2328	WH2328	08/11/88	1809	1.17	73.10	11.397			MG/GH	
WH2329	WH2329	08/11/88	1820	1.16	69.91	3.445			MG/GH	
WH2330	WH2330	08/11/88	1832	1.18	76.73	3.232			MG/GH	
WH2332	WH2332	08/11/88	1843	1.16	67.29	2.863			MG/GH	
WH2333	WH2333	08/11/88	1853	1.18	71.25	4.997			MG/GH	
WH2334	WH2334	08/11/88	1904	1.05	71.70	0.335			MG/GH	
WH2336	WH2336	08/11/88	1915	1.09	73.25	0.334			MG/GH	
WH2337	WH2337	08/11/88	1926	1.13	74.95	0.372			MG/GH	
WH2338	WH2338	08/11/88	1937	0.02*	74.20	0.300 U			MG/GH	UNITS OF MG PER SAMPLE
WH2339	WH2339	08/11/88	1948	0.00*	72.52	0.300 U			MG/GH	UNITS OF MG PER SAMPLE

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: HER
CASE: 0811
DATE: 08/10/88

SURROGATE CONC 0.06 RF NATIVE 2.109 IDN RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	IDN 257	IDN 259	IDN 263	IDN 268	RATIO 257/259	SURR ACC	RAW VALUE	UNITS
AUG1104	METHBLANK	METHBLNK	08/11/88 1613	5.00	1	1	146790	401149	1.00	87.82	-0.023	NG/GH
AUG1105	SOILBLANK	OCL34504	08/11/88 1628	5.00	2121	3284	159641	473367	0.65	80.93	0.004	NG/GH
AUG1106	SOILSPIKE	OCL35562	08/11/88 1642	5.00	101159	89736	209427	558512	1.13	89.52	0.788	NG/GH
AUG1107	SOIL PE	PE-A	08/11/88 1653	5.00	97360	84626	183421	564729	1.15	77.50	0.741	NG/GH
AUG1108	WH2321	WH2321	08/11/88 1705	4.98	157465	136549	121461	389381	1.15	73.82	1.775	NG/GH
AUG1109	WH2322	WH2322	08/11/88 1716	5.14	516726	447097	195236	600205	1.16	75.84	3.682	NG/GH
AUG1110	WH2324	WH2324	08/11/88 1727	4.96	132811	112147	79744	242881	1.18	77.38	2.388	NG/GH
AUG1111	WH2325	WH2325	08/11/88 1738	4.92	600117	512077	302366	1001152	1.17	70.93	2.654	NG/GH
AUG1112	WH2326	WH2326	08/11/88 1749	4.94	2717394	2311133	373213	1154760	1.18	71.47	10.427	NG/GH
AUG1113	WH2327	WH2327	08/11/88 1759	4.89	1836783	1565514	425186	1372819	1.17	70.86	5.985	NG/GH
AUG1114	WH2328	WH2328	08/11/88 1809	5.01	2588727	2211335	330880	994600	1.17	73.10	11.397	NG/GH
AUG1115	WH2329	WH2329	08/11/88 1820	5.02	593095	511369	224238	747866	1.16	69.91	3.465	NG/GH
AUG1116	WH2330	WH2330	08/11/88 1832	4.94	423782	358993	189087	577128	1.18	76.73	3.232	NG/GH
AUG1117	WH2332	WH2332	08/11/88 1843	5.10	567191	488020	244475	850131	1.16	67.29	2.863	NG/GH
AUG1118	WH2333	WH2333	08/11/88 1853	4.99	1816872	1541033	491420	1589143	1.18	71.25	4.997	NG/GH
AUG1119	WH2334	WH2334	08/11/88 1904	5.05	83690	79671	320874	1070960	1.05	71.70	0.335	NG/GH
AUG1120	WH2336	WH2336	08/11/88 1915	4.97	57724	53025	226257	739314	1.09	73.25	0.334	NG/GH
AUG1121	WH2337	WH2337	08/11/88 1926	5.06	36442	32140	127483	406941	1.13	74.95	0.372	NG/GH
AUG1122	WH2338	WH2338	08/11/88 1937	1.00	89	4026	161263	521622	0.02	74.20	-0.021	NG/GH
AUG1123	WH2339	WH2339	08/11/88 1948	1.00	1	4846	150611	498443	0.00	72.52	0.001	NG/GH

GC/MS/MS WORKSHEET REPORT FORM

SITE: MER
CASE: 0815
DATE: 08/17/88

SURROGATE CONC 0.06 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SURR ACC	RAW VALUE	UNITS
AUG1637	METHBLANK	METHBLANK	08/16/88 1829	5.00	6005	12406	300051	983859	0.48	73.18	0.021	NG/GR
AUG1638	SOILBLANK	OCL34575	08/16/88 1841	5.00	7107	9229	278863	922829	0.77	72.50	0.019	NG/GR
AUG1639	SOILSPIKE	OCL35562	08/16/88 1853	5.00	278664	240842	518006	1455951	1.16	84.89	0.823	NG/GR
AUG1640	SOIL PE	PE-A	08/16/88 1904	5.00	152168	131215	252739	835892	1.16	72.09	0.781	NG/GR
AUG1641	WH2372	WH2372	08/16/88 1916	5.07	49050	46610	303555	1010936	1.05	71.94	0.199	NG/GR
AUG1642	WH2373	WH2373	08/16/88 1930	5.12	59283	53903	305338	1009433	1.10	72.44	0.237	NG/GR
AUG1643	WH2374	WH2374	08/16/88 1942	5.11	64943	59624	280427	940090	1.09	71.46	0.285	NG/GR
AUG1644	WH2375	WH2375	08/16/88 1953	5.11	324839	280430	329565	1113455	1.16	76.28	1.239	NG/GR
AUG1645	WH2376	WH2376	08/16/88 2005	5.09	309928	264067	307437	1036882	1.17	70.81	1.275	NG/GR
AUG1646	WH2377	WH2377	08/16/88 2016	5.07	370771	317231	358786	1186207	1.17	71.78	1.334	NG/GR
AUG1647	WH2378	WH2378	08/16/88 2027	5.03	229936	203605	349517	1172216	1.13	71.05	0.849	NG/GR
AUG1648	WH2379	WH2379	08/16/88 2038	5.10	244769	213496	352038	1167032	1.15	71.85	0.890	NG/GR
AUG1649	WH2380	WH2380	08/16/88 2049	5.02	182992	156015	241547	814686	1.17	70.58	0.960	NG/GR
AUG1650	WH2381	WH2381	08/16/88 2100	1.00	6019	9671	364795	1216994	0.62	71.93	0.038	NG/GR
AUG1651	WH2382	WH2382	08/16/88 2111	1.00	3089	11308	460953	1533205	0.27	72.15	-0.003	NG/GR

TCDD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HER
CASE: 0819
DATE: 08/21/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	NATIVE RATIO	SURROGATE ACC	TCDD CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
NH2286	NH2286	08/18/88 1428	1.12	77.23	1.621			NG/SM	

QUALIFICATION FLAGS:

* 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
*** HIGH DETECTION LIMIT

RERUN CODES:

A AUTOMATIC RERUN
R REQUESTED RERUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: MER
CASE: 0819
DATE: 08/21/88

SURROGATE CONC 0.06 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SURR ACC	RAW VALUE	UNITS
AUG1811	WH2286	WH2286	08/18/88 1428	5.08	13238	13658	13371	41041	1.12	77.23	1.621	NG/GM

TCDD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HER
CASE: 0822
DATE: 08/21/88

AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	NATIVE RATIO	SURROGATE ACC	TCDD CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
	METHBLANK	08/22/88 1410	0.00*	76.97	0.300 U			NG/GM	
	SDILBLANK	08/22/88 1423	0.12*	75.71	0.300 U			NG/GM	
	SDILSPIKE	08/22/88 1443	1.13	84.59	0.808			NG/GM	
	SDIL PE	08/22/88 1455	1.18	73.31	0.761			NG/GM	
	WH2290	08/22/88 1508	0.92*	73.31	0.300 U			NG/GM	
	WH2291	08/22/88 1519	1.00*	73.91	0.300 U			NG/GM	
	WH2292	08/22/88 1532	0.93*	73.63	0.300 U			NG/GM	

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: HER
CASE: 0822
DATE: 08/21/88

SURROGATE CONC 0.06 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.010

LAB SAMPLE #	AREA #	CLIENT SAMPLE #	ANALYSIS DATE TIME	SAMPLE AMOUNT	ION 257	ION 259	ION 263	ION 268	RATIO 257/259	SURP ACC	RAW VALUE	UNITS
AUG2206	METHBLANK	METHBLANK	08/22/88 1410	5.00	1	2216	107562	335373	0.00	76.97	-0.007	NG/GM
AUG2207	SOILBLANK	OCL34541	08/22/88 1423	5.00	608	4879	162135	513943	0.12	75.71	0.002	NG/GM
AUG2208	SOILSPIKE	OCL35548	08/22/88 1443	5.00	101053	89263	192526	543148	1.13	84.59	0.808	NG/GM
AUG2209	SOIL PE	PE-A	08/22/88 1455	5.00	156255	132734	268815	874467	1.18	73.31	0.761	NG/GM
AUG2210	WH2290	WH2290	08/22/88 1508	5.03	14911	16129	197611	644436	0.92	73.31	0.090	NG/GM
AUG2211	WH2291	WH2291	08/22/88 1519	5.09	18339	18327	218468	708746	1.00	73.91	0.098	NG/GM
AUG2212	WH2292	WH2292	08/22/88 1532	5.07	40206	43304	438085	1426466	0.93	73.63	0.114	NG/GM

TCDD FINAL DATA REPORT SHEET

FILE RECEIVED DATE:
FILE RECEIVED TIME:

SITE: HEP
CASE: 0962
DATE: 09/09/89

AREA #	CLIENT SAMPLE #	ANALYSIS		NATIVE PATID	SURROGATE ACC	TCDD CONC.	RERUN CODE	VALID CODE	UNITS	COMMENTS
		DATE	TIME							
METHBLANK	METHBLNK	09/09/88	1513	0.92*	76.96	0.300 U			NS/GM	
SOILBLANK	OCL34541	09/09/88	1527	0.76*	77.71	0.300 U			NS/GM	
SOILSPIKE	OCL35528	09/09/88	1540	1.11	84.44	0.845			NS/GM	
SOIL PE	PE-H	09/09/88	1552	1.10	77.11	0.768			NS/GM	
WH2383	WH2383	09/09/88	1606	0.95*	77.93	0.300 U			NS/GM	

QUALIFICATION FLAGS:

- * 257/259 RATIO OUTSIDE OF ACCEPTABLE RANGE
- ** SURROGATE OUTSIDE OF ACCEPTABLE RANGE
- *** HIGH DETECTION LIMIT

RERUN CODES:

- A AUTOMATIC RERUN
- R REQUESTED RERUN

GC/MS/MS WORKSHEET REPORT FORM

SITE: HER
CASE: 0909
DATE: 09/09/88SUPROGATE CONC 0.06 RF NATIVE 2.109 ION RATIO: 1.009 TO 1.233
INTERNAL STD CONC 1.05 RF SURROGATE 2.083 CORRECTION FACTOR: 0.010

IB	AREA #	CLIENT	ANALYSIS	SAMPLE	ION 257	ION 259	ION 263	ION 268	RATIO	SURR	RAW	UNITS
SAMPLE #		SAMPLE #	DATE	TIME	AMOUNT				257/259	ACC	VALUE	
:P0903	METHBLANK	METHBLNK	09/09/88	1513	5.00	28740	31370	279565	870873	0.92	76.96	0.141 HS/GM
:P0904	SOILBLANK	OCL34541	09/09/88	1527	5.00	7372	9680	203058	626863	0.76	77.71	0.042 NG/GM
SEP0905	SOILSPIKE	OCL35528	09/09/88	1540	5.00	122969	111076	226190	639151	1.11	84.44	0.845 NG/GM
SEP0906	SOIL PE	PE-A	09/09/88	1552	5.00	50776	46004	93768	290125	1.10	77.11	0.768 NG/GM
:P0907	WH2383	WH2383	09/09/88	1606	5.02	5670	5986	104564	321822	0.95	77.93	0.063 NG/GM

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APPENDIX
C

APPENDIX C
SUMMARY DATA REPORT FORMS
2,3,7,8-TCDD

The following report forms for 2,3,7,8-TCDD analyses are extracted from analytical reports prepared by TMS Analytical Services, Inc. See Tables A-1 and A-2 (Appendix A) for identification and description of samples. The complete reports of these analyses are located in Volume IV.

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FORM 9-15 TOCD SOIL DATA REPORT FORM

Page 1 of 2

Lab: RMS ANALYTICAL SERVICES

Report Date: 7/20/88

CASE/SATCH: MERC/LES 0750A - 2,3,7,8-TCDD

Column: BF8331: 6M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 59704SD

CLIENT Sample Number	Entr. Date	Net Wt.	ug/kg Meas.	TCDD MFC	GC/MS Date	Analysis Time
WH2034	7/20/88	5.01	2.02	N/A	7/30/88	2124
WH2035	7/20/88	5.05	1.93	N/A	7/30/88	2157
WH2036	7/20/88	5.07	1.99	N/A	7/30/88	2231
WH2042	7/20/88	5.01	1.55	N/A	7/30/88	2294
WH2083	7/20/88	5.16	2.74	N/A	7/30/88	2238
WH2084	7/20/88	5.14	1.51	N/A	7/31/88	0011
WH2085	7/20/88	5.14	1.24	N/A	7/31/88	0045
WH2089	7/20/88	5.05	1.20	N/A	7/31/88	0119
WH2090	7/20/88	5.04	1.11	N/A	7/31/88	0152
WH2091	7/20/88	5.02	1.21	N/A	7/31/88	0225

MB	MB = Method Blank	FB	FB = Field Blank
N	N = Native TCDD Spike	IS	IS = Internal Standard
D	D = Duplicate/Fortified field Blank	RR	RR = Rerun
FE	FE = EMML-LV Performance Evaluation Sample	ND	ND = Not Detected
MFC	MFC = Maximum Possible Concentration	RS	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 7/20/98

CASE:ATCHN HEPCHLES 0720A - 2,3,7,8-TCDD

Column: SP2331; 60M X 1.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	329/ 322	332/ 33419	259	320	322	326	33219	33419	
WH2034	0.75	0.80	59813	66922	89404	71643	155327	133016	
WH2035	0.77	0.75	15755	42724	55574	48542	104624	139890	
WH2036	0.79	0.77	12319	33310	42397	26014	77039	99167	
WH2042	0.78	0.74	5256	16706	21578	22174	47197	52955	
WH2043	0.78	0.80	11414	25449	32917	18429	41352	51918	
WH2044	0.73	0.77	5940	12445	21062	22422	44031	59752	
WH2085	0.84	0.78	5618	21995	26173	34226	74150	35523	
WH2089	0.77	0.80	21500	61075	79186	108003	231230	299732	
WH2090	0.84	0.82	10997	23437	28008	42401	92271	113407	
WH2091	0.80	0.76	10732	29035	34869	46272	100231	132426	

MR = Method Blank
 N = Native TCDD Spike
 D = Duplicate/Fortified Field Blank
 FE = EMSL-LV Performance Evaluation Sample
 MPC = Maximum Possible Concentration
 FB = Field Blank
 IS = Internal Standard
 RR = Rerun
 ND = Not Detected
 RS = Recovery Standard

FORM 3-18 TCDD SOIL DATA REPORT FORM

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/19/89

CASE: Coluan: SP2331: 50M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT	-----					
Sample	Extr.	ug/kg	TCDD	GC/MS	Analysis	
Number	Date	Net Wt.	Meas.	MPC	Date	Time

WH2122	07/19/88	5.19	6.12	N/A	8/3/89	0302
WH2123	07/19/88	4.84	1.31	N/A	8/3/89	0336
WH2124	07/19/88	4.39	1.83	N/A	8/3/89	0410
WH2125	07/19/88	4.94	2.78	N/A	8/3/89	0444

- MB = Method Blank
 Y = Native TCDD Spike
 D = Duplicate/Fortified Field Blank
 PE = EMSL-LV Performance Evaluation Sample
 MPC = Maximum Possible Concentration
 FB = Field Blank
 IS = Internal Standard
 RR = Rerun
 ND = Not Detected
 RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/19/99

CASE:

Column: SP2231; 50% 1 0.25

ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	320/ 322	332/ 33416	259	320	322	323	33216	33416	
WH2122	0.77	0.79	48457	132173	172667	41981	95276	120908	
WH2123	0.75	0.79	17584	26563	35503	43603	97055	122579	
WH2124	0.90	0.90	2871	3545	3947	3622	8893	9926	
WH2125	0.81	0.75	8874	26495	32925	20794	41921	55782	

NB = Method Blank
 N = Native TOCD Spike
 D = Duplicate/Portified Field Blank
 PE = EPA/MLPA Performance Evaluation Sample
 MPC = Maximum Possible Concentration

FB = Field Blank
 IS = Internal Standard
 RR = Rerun
 ND = Not Detected
 RS = Recovery Standard

HER0715-03

FORM B-1S TCDD SOIL DATA REPORT FORM

Lab: THE ANALYTICAL SERVICES

Report Date: 08/18/88

CASE:

Column: SP2331: 6CM X 0.25

ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT	-----					
Sample Number	Extr. Date	Wet Wt.	ug/kg Meas.	TCDD MPC	GC/MS Date	Analysis Time
WH2060	7/15/88	5.13	3.43	N/A	8/3/88	0517
WH2051	7/15/88	5.97	4.19	N/A	8/3/88	0551
WH2092	7/15/88	5.03	3.59	N/A	8/3/88	0625
WH2094	7/15/88	5.10	2.27	N/A	8/3/88	0659
WH2087	7/15/88	5.01	1.87	N/A	8/3/88	0733
WH2088	7/15/88	5.02	2.39	N/A	8/3/88	0807
WH2092	7/15/88	5.13	1.56	N/A	8/3/88	0841
WH2093	7/15/88	5.04	1.41	N/A	8/3/88	0914
WH2094	7/15/88	5.07	1.00	N/A	8/3/88	0948

MB = Method Blank	FE = Field Blank
N = Native TCDD Spike	IS = Internal Standard
D = Duplicate/Fortified Field Blank	RR = Rerun
FE = EMSL Performance Evaluation Sample	ND = Not Detected
MPC = Maximum Feasible Concentration	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/15/88

QRES:

Client: SCS&S, INC., WVP
 ISOMER SPECIFIC FOR ENCLIS-TCCD

Instrument ID: PE 8970KSD

CLIENT Sample Number	Relative Response Ratios		Response Area						
	320/	322/	259	320	322	325	327S	354S	
WH2080	0.78	0.77	27485	84860	107212	46294	103169	129992	
WH2081	0.78	0.81	35226	102659	132260	49224	111468	127943	
WH2082	0.76	0.78	30497	92212	121054	50133	117027	149180	
WH2084	0.75	0.80	50702	115343	154571	99789	235271	292512	
WH2087	0.72	0.78	14540	44415	62036	49494	112451	143827	
WH2088	0.79	0.79	24254	70913	39404	54478	132243	172222	
WH2092	0.71	0.79	12516	22461	29918	31939	79953	100200	
WH2093	0.76	0.79	16026	45092	59004	63276	146211	164279	
WH2094	0.84	0.82	8E10	27591	32766	50419	121438	147477	

MB = Method Blank
 N = Active TCDD Spike
 D = Duplicate/Fortified Field Blank
 PE = EMSL-LV Performance Evaluation Sample
 MPC = Maximum Possible Concentration

FB = Field Blank
 IS = Internal Standard
 RR = Rerun
 ND = Not Detected
 RS = Recovery Standard

FORM 8-10 TCDD SOIL DATA REPORT FORM

Page 1 of 2

Lab: TMS ANALYTICAL SERVICES

Report Date: 02/17/88

DATE: REF07102 190KGF SPECIFIC

Column: EP5301; 60M X 0.85
190KGF SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT	-----					
Sample	Extr.		ug/kg	TCDD	GC/MS	Analysis
Number	Date	Wet Wt.	Meas.	MPC	Date	Time

WH2023	05/10/88	5.06	2.01	N/A	06/18/88	2107
WH2025	05/10/88	5.02	2.88	N/A	06/18/88	2140
WH2026	05/10/88	5.00	2.36	N/A	06/18/88	2213
WH2029	05/10/88	5.04	1.01	N/A	06/18/88	2319

MB	MB = Method Blank	FB = Field Blank
N	N = Native TCDD Spike	IS = Internal Standard
D	D = Duplicate/Fortified Field Blank	RR = Rinse
PE	PE = EPA-LV Performance Evaluation Sample	ND = Not Detected
MPC	MPC = Maximum Prescribed Concentration	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/19/99

CASE:HER0712E ISOMER SPECIFIC

Column: SP2321: 50% X 1.25
ISOMER SPECIFIC FOR B.S.G.-TOXI

Instrument ID: HP 5970NS3

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	329/	332/	25*	320	322	328	33215	33415	
WH2022	0.82	0.78		22402	27347	21111	42222	32277	
WH2023	0.59	0.83	14322	43222	62423	35212	74212	59722	
WH2024	0.71	0.75	24222	68724	97177	111103	123222	177422	
WH2029	0.80	0.72	14272	24245	30523	54940	106249	126945	

MS = Method Blank
 N = Native TOCD Spike
 D = Duplicate/Fortified Field Blank
 PE = EMSL-LV Performance Evaluation Sample
 MPC = Maximum Possible Concentration

FB = Field Blank
 IS = Internal Standard
 RR = Rerun
 ND = Not Detected
 RS = Recovery Standard

Lab: TMC ANALYTICAL SERVICES

Report Date: 08/19/88

CASE: HE0712C ISOMER SPECIFIC

Column: SF2331; 604 X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT						
Sample Number	Extr. Date	Wet Wt.	ug/kg Meas.	TCDD MPC	GC/MS Date	Analysis Time
WH2031	08/10/88	5.04	2.73	N/A	08/18/88	2353
WH2032	07/12/88	4.82	2.67	N/A	08/19/88	0026
WH2033	07/12/88	4.93	2.53	N/A	08/19/88	0059
WH2037	07/12/88	4.94	1.26	N/A	08/19/88	0132
WH2038	07/12/88	5.00	1.81	N/A	08/19/88	0205
WH2039	07/12/88	4.84	1.33	N/A	08/19/88	0229
WH2040	07/12/88	5.16	1.65	N/A	08/19/88	0312

MB	MB = Method Blank	FB	FB = Field Blank
N	N = Native TCDD Spike	IS	IS = Internal Standard
D	D = Duplicate/Fortified Field Blank	FR	FR = Ferum
PE	PE = EMSL-LV Performance Evaluation Sample	ND	ND = Not Detected
MPC	MPC = Maximum Possible Concentration	RS	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/19/88

CASE:HER0712C ISOMER SPECIFIC

Column: SP2331; 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	320/	332/	259	320	322	328	332IS	334IS	
WH2031	0.81	0.82	18237	56768	70068	47594	93478	114407	
WH2032	0.79	0.84	43708	164015	207312	126777	296269	353202	
WH2033	0.76	0.85	29371	56122	74100	50872	108547	126515	
WH2037	0.71	0.84	19213	47271	66579	88465	187769	222919	
WH2039	0.74	0.78	39931	109606	147763	135842	281492	358637	
WH2039	0.74	0.78		65446	88056	114791	234857	299055	
WH2040	0.79	0.77		117355	148472	133285	273478	354366	

MB = Method Blank
M = Native TCDD Spike
D = Duplicate/Fortified Field Blank
PE = EMSL-LV Performance Evaluation Sample
MPC = Maximum Possible Concentration

FB = Field Blank
IS = Internal Standard
RP = Rerun
ND = Not Detected
RS = Recovery Standard

FORM E-13 TCDD SOIL DATA REPORT FORM

Page 1 of 3

Lab: THE ANALYTICAL SERVICES

Report Date: 08/19/88

CASE: A900144 ISOMER SPECIFIC

Solvent: SF6001; 60% X 4.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT	-----					
Sample	Extr.		ug/kg	TCDD	GC/MS	Analysis
Number	Date	Wet Wt.	Meas.	MPC	Date	Time

WH2057C	07/14/88	4.88	1.18	N/A	08/19/88	0346
WH2059D	07/14/88	4.89	1.23	N/A	08/19/88	0419
WH2059	07/14/88	5.11	0.95	N/A	08/19/88	0453

MB	MB = Method Blank	FB = Field Blank
N	N = Native TCDD Spike	IS = Internal Standard
D	D = Duplicate/Fortified Field Blank	RR = Rerun
PE	PE = EMSL-LV Performance Evaluation Sample	ND = Not Detected
MPC	MPC = Maximum Possible Concentration	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 05/19/88

CASE#WRC014A ISOMER SPECIFIC

Column: SP5331: 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: WF 5970MSD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	320/ 322	332/ 334IS	259	320	322	328	332IS	334IS	
WH2057C	0.81	0.78	74771	141842	175391	245145	542933	659788	
WH2058D	0.79	0.81	67755	180717	229585	296938	688159	850179	
WH2059	0.80	0.80	56269	129522	152523	255944	572676	717210	

MB = Method Blank
 N = Native TCDD Spike
 D = Duplicate/Fortified Field Planr
 PE = EMSL-LV Performance Evaluation Sample
 MPC = Maximum Possible Concentration

FB = Field Blank
 IS = Internal Standard
 RR = Rerun
 ND = Not Detected
 RS = Recovery Standard

FORM B-1S TCDD SOIL DATA REPORT FORM

Lab: TME ANALYTICAL SERVICES

Report Date: 08/19/98

CASE: HER3720A ISOMER SPECIFIC

Column: SP2931: 601 X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDF

Instrument ID: HF 5970MSD

CLIENT

Sample Number	Extr. Date	Wet wt.	ug/kg Meas.	TCDD MPC	GC/MS Date	Analysis Time
W42042	07/20/98	5.08	0.65	N/A	08/19/98	0526

- | | | | |
|-----|--|----|------------------------|
| MB | MB = Method Blank | FB | FB = Field Blank |
| N | N = Native TCDD Spike | IS | IS = Internal Standard |
| D | D = Duplicate/Fortified Field Blank | RR | RR = Rerun |
| PE | PE = EMSL-LV Performance Evaluation Sample | ND | ND = Not Detected |
| MPC | MPC = Maximum Possible Concentration | RS | RS = Recovery Standard |

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/19/88

CASE: HCF0720A ISOMER SPECIFIC

Column: SP2331; 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	320/	332/	259	320	322	328	331S	334IS	
WH2042	0.86	0.86	25703	74042	92909	227920	506538	435522	

MB = Method Blank
N = Native TCDD Spike
D = Duplicate/Fortified Field Blank
PE = EMSL-LV Performance Evaluation Sample
MPC = Maximum Possible Concentration

FB = Field Blank
IS = Internal Standard
RR = Rerun
ND = Not Detected
RS = Recovery Standard

Lab: THE ANALYTICAL SERVICES

Report Date: 03/19/88

CASE: 8807264 ISOMER SPECIFIC

Column: SP8831: 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 570MSD

CLIENT Sample Number	Extr. Date	Wet Wt.	ug/kg Meas.	TCDD MPC	GC/MS Date	Analysis Time
W42221	07/26/88	5.26	1.41	N/A	08/19/88	1500 NDB: 2,3,7,8 ISOMERS PRESENT
W42222	07/26/88	5.01	2.83	N/A	08/19/88	0707

MB	MB = Method Blank	FB	FB = Field Blank
N	N = Native TCDD Spike	IS	IS = Internal Standard
D	D = Duplicate/Fortified Field Blank	RR	RR = Rerun
PE	PE = EMSL-LV Performance Evaluation Sample	ND	ND = Not Detected
MPC	MPC = Maximum Possible Concentration	PS	PS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/19/88

CASE: ER0726A ISOMER SPECIFIC

Solvent: SP2291: 50% X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSB

CLIENT Sample Number	Relative Response Ratio		Response (Area)						
	3207	3227	322	320	322	328	32218	32418	
WH2221	0.73	0.77	143227	159901	212455	219270	492241	646835	
WH2222	0.69	0.81	143227	225972	374322	359168	692220	850503	

MB = Method Blank
 N = Native TCDD Spike
 D = Duplicate/Fortified Field Blank
 PE = EMSL-LV Performance Evaluation Sample
 MPC = Maximum Possible Concentration

FB = Field Blank
 IS = Internal Standard
 RR = Rerun
 ND = Not Detected
 RS = Recovery Standard

Lab: TYS ANALYTICAL SERVICES

Report Date: 06/19/88

CASE: WER07255 ISOMER SPECIFIC

Column: BF8851; 60M X 0.25

ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT						
Sample Number	Extr. Date	Net Wt.	ug/kg Meas.	TCDD MPC	GC/MS Date	Analysis Time
WH2258	07/26/88	5.06	1.74	N/A	05/19/88	0914
WH2257	07/26/88	5.11	0.96	N/A	05/19/88	0955

MB	MB = Method Blank	FB	FB = Field Blank
N	N = Native TCDD Spike	IS	IS = Internal Standard
D	D = Duplicate/Fortified Field Blank	RR	RR = Rerun
PE	PE = EMSL-LA Performance Evaluation Sample	ND	ND = Not Detected
MFC	MFC = Maximum Possible Concentration	RS	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 03/19/88

CASE: MERC726E ISOMER SPECIFIC

Column: SP2331: 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HF 5970MSD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	320/ 322	332/ 334IS	259	320	322	328	332IS	334IS	
WH2258	0.87	0.76		140331	162222	165837	335979	430299	
WF2259	0.77	0.81	171276	180091	235119	361616	853739	1050713	

MB = Method Blank
 N = Native TCDD Spore
 D = Duplicate/Fortified Field Blank
 PE = ENE-LV Performance Evaluation Spore
 MFC = Maximum Possible Concentration

FB = Field Blank
 IE = Internal Standard
 RP = Rerun
 ND = Not Detected
 RS = Recovery Standard

FORM B-15 TCDD SOIL DATA REPORT FORM

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Lab: TMS ANALYTICAL SERVICES

Report Date: 08/24/88

CASE: HERO823A ISOMER SPECIFIC

Column: SP2331; 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT

Sample Number	Extr. Date	Wet Wt.	ug/kg Meas.	TCDD MPC	GC/MS Date	Analysis Time
WH2321	08/11/88	4.98	1.88	N/A	08/22/88	1735
WH2322	08/11/88	5.14	3.65	N/A	08/22/88	1809
WH2324	08/11/88	4.96	2.30	N/A	08/22/88	1842
WH2325	08/11/88	4.92	2.66	N/A	08/22/88	1915
WH2326	08/11/88	4.94	10.92	N/A	08/22/88	1948
WH2327	08/11/88	4.89	5.76	N/A	08/22/88	2021
WH2328	08/11/88	5.01	12.32	N/A	08/22/88	2054
WH2329	08/11/88	5.02	3.34	N/A	08/22/88	2127
WH2330	08/11/88	4.94	3.19	N/A	08/22/88	2201
WH2332	08/11/88	5.10	2.78	N/A	08/22/88	2234
WH2333	08/11/88	4.99	4.80	N/A	08/23/88	0013

MB	MB = Method Blank	FB = Field Blank
N	N = Native TCDD Spike	IS = Internal Standard
D	D = Duplicate/Fortified Field Blank	RR = Rerun
PE	PE = EMSL-LV Performance Evaluation Sample	ND = Not Detected
MPC	MPC = Maximum Possible Concentration	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/24/88

CASE: HER0811A ISOMER SPECIFIC

Column: SP2331; 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	320/ 322	332/ 334IS	259	320	322	328	332IS	334IS	
WH2221	0.82	0.79	61812	206933	250835	214916	485687	617521	
WH2322	0.81	0.79	70724	232562	287249	121558	274972	348713	
WH2324	0.79	0.79	46012	154001	195082	134630	304993	394781	
WH2325	0.79	0.78	56394	184924	233465	140747	315768	403166	
WH2326	0.76	0.80	84905	291352	383660	55903	124939	156763	
WH2327	0.74	0.80	126633	398652	539990	151747	332584	417332	
WH2328	0.88	0.78	71065	258500	292736	43318	88033	112990	
WH2329	0.79	0.80	59253	180061	227686	112231	243489	304695	
WH2330	0.78	0.81	28213	74856	96314	47665	109542	134700	
WH2332	0.82	0.81	67993	178263	217336	124253	280687	348431	
WH2333	0.78	0.79	96282	297691	379606	128297	281553	355089	

MB = Method Blank
 N = Native TCDD Spike
 D = Duplicate/Fortified Field Blank
 PE = EMS-LV Performance Evaluation Sample
 MPC = Maximum Possible Concentration

FB = Field Blank
 IS = Internal Standard
 RR = Rerun
 ND = Not Detected
 RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/24/88

CASE: HER0812A ISOMER SPECIFIC

Column: SP2331; 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT						
Sample Number	Extr.		ug/kg Meas.	TCDD MPC	GC/MS Date	Analysis Time
	Date	Wet Wt.				
WH2353	08/12/88	5.13	7.16	N/A	08/23/88	0047
WH2355	08/12/88	4.96	11.65	N/A	08/23/88	0153
WH2357	08/12/88	5.19	5.10	N/A	08/23/88	0226

MB	MB = Method Blank	FB = Field Blank
N	N = Native TCDD Soike	IS = Internal Standard
D	D = Duplicate/Fortified Field Blank	RR = Rerun
PE	PE = EMSL-LV Performance Evaluation Sample	ND = Not Detected
MPC	MPC = Maximum Possible Concentration	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/24/88

CASE: HER0812A ISOMER SPECIFIC

Column: SP2331; 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	320/ 322	332/ 334IS	259	320	322	328	332IS	334IS	
WH2353	0.80	0.77	107255	370169	464381	100291	223270	288199	
WH2355	0.77	0.79	166065	580332	749858	104862	228157	290349	
WH2357	0.78	0.78	64084	227259	290012	85012	192740	246959	

MB = Method Blank
 N = Native TCDD Spike
 D = Duplicate/Fortified Field Blank
 PE = EMSL-LV Performance Evaluation Saddle
 MPC = Maximum Possible Concentration

FB = Field Blank
 IS = Internal Standard
 RR = Rerun
 ND = Not Detected
 RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/24/88

CASE: HERC9126 ISOMER SPECIFIC

Column: SP2331; 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT	-----					
Sample Number	Extr. Date	Wet Wt.	ug/kg Meas.	TCDD MPC	GC/MS Date	Analysis Time
WH2371	08/12/88	5.05	54.73	N/A	08/23/88	0259

MB	MS = Method Blank	FB = Field Blank
N	N = Native TCDD Spike	IS = Internal Standard
D	D = Duplicate/Fortified Field Blank	RR = Rerun
PE	PE = EMSL-LV Performance Evaluation Sample	ND = Not Detected
MPC	MPC = Maximum Possible Concentration	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/24/88

CASE: WER0912B ISOMER SPECIFIC

Column: SP2331; 60M X 0.25

ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	320/	332/	259	320	322	328	332IS	334IS	
WH2371	0.82	0.81	879594	3217719	3941540	151116	261507	321688	

MB = Method Blank
 N = Native TCDD Spike
 D = Duplicate/Fortified Field Blank
 PE = EMSL-LV Performance Evaluation Sample
 MPC = Maximum Possible Concentration

FB = Field Blank
 IS = Internal Standard
 RR = Rerun
 ND = Not Detected
 RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 09/24/88

CAGE: HEF0815A ISOMER SPECIFIC

Column: SP2221: 50M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDF

Instrument ID: HP 5970MSD

CLIENT	-----					
Saasle	Extr.		ug/kg	TCDF	GC/MS	Analysis
Number	Date	Wet Wt.	Meas.	MPC	Date	Time

WH2375	08/15/88	5.11	1.23	N/A	08/23/88	0232
WH2375	08/15/88	5.09	1.28	N/A	08/23/88	0405
WH2377	08/15/88	5.37	1.34	N/A	08/23/88	0438

MS	MS = Method Blank	FB = Field Blank
N	N = Native TOCD Soils	IS = Internal Standard
D	D = Duplicate/Corroborated Field Blank	RR = Retention
PE	PE = ERMU-LV Performance Evaluation Sample	ND = Not Detected
MPC	MPC = Maximum Possible Concentration	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 08/24/86

CASE: HEROICISA ISOMER SPECIFIC

Column: SPE951: 6CM X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TOCD

Instrument ID: HP 5970MSD

CLIENT Sample Number	Relative Response Ratio		Response (Area)						
	320/	322/	259	320	322	328	32218	32418	
WH2275	0.84	0.79		34435	41035	51735	117641	151417	
WH2275	0.78	0.78		74518	95954	112724	254911	322216	
WH2277	0.78	0.80	25627	77895	99542	114912	263066	322449	

MS = Method Blank

N = Native TOCD Spike

D = Duplicate/Portified Field Blank

PE = EXSL-10 Performance Evaluation Sample

FC = Maximum Feasible Concentration

FB = Field Blank

IB = Internal Standard

RR = Ratio

ND = Not Detected

RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 9/24/88

CASE: HERZOG

Collet: SPEED: 50N X 0.22

180MM SPECIFIC FOR 0.0, 0.7, 0-1000

Instrument ID: HP 5970ME1

CLIENT	Extr.	ug/kg	TODD	GC/MS	Analysis	
Sample	Date	Soil Wt.	Meas.	MPC	Date	Time
Number						
METH-00 BLANK	08/23/88	5.00	0.00	0.14	08/23/88	17:24
SOIL BLANK	08/23/88	5.00	0.00	0.19	08/23/88	17:57
SOIL BR1KE	08/23/88	5.00	0.75	N/A	08/23/88	18:30
SOIL KE-B	08/23/88	5.00	3.42	N/A	08/23/88	19:03
WH1474	08/23/88	5.04	1.11	N/A	08/23/88	19:35
WH2041	08/23/88	5.00	1.09	N/A	08/23/88	20:08
WH2043	08/23/88	5.11	0.87	N/A	08/23/88	20:41
WH2122	08/23/88	5.15	5.97	N/A	08/23/88	21:14
WH2127	08/23/88	5.00	2.08	N/A	08/23/88	21:47
WH2128	08/23/88	5.14	4.61	N/A	08/23/88	22:20
WH2225	08/23/88	4.98	1.07	N/A	08/23/88	22:53
WH2205	08/23/88	5.00	1.55	N/A	08/23/88	23:59
WH2207	08/23/88	5.03	2.44	N/A	08/24/88	00:32
WH2214	08/23/88	5.11	3.09	N/A	08/24/88	01:05
WH2217	08/23/88	4.95	3.25	N/A	08/24/88	01:35
WH2218	08/23/88	5.11	3.95	N/A	08/24/88	02:11

MB = Method Blank
 N = Native TODD Soils
 I = Indicate Priorities Field Blank
 PE = ENEC Performance Evaluation Soils
 MPC = Maximum Possible Concentration
 FB = Field Blank
 IS = Internal Standard
 CS = Control
 ND = Not Detected
 RS = Recovery Standard

Lab: TNS ANALYTICAL SERVICES

Report Date: 10/16/99

CASE: HEP9907A

Column: SPE931/ SW 4 1.25

INHER SPECIFIC FOR ELEC. TOSS

Instrument ID: HP 5974MSI

CLIENT Sample Number	Relative		Response (Area)						
	Response	Ratio							
	520/	322/		520	322	328	329	329B	324B
	322	13-13							
METHOD BLANK	ERR	0.79	-	-	-	68994	161782	204211	
SOIL BLANK	2AF	0.77	-	-	-	59752	142555	165190	
SOIL SPIKE	0.75	0.79	+	28300	37951	64755	175375	222153	
SOIL PE-B	0.77	0.78		33552	107403	139474	62024	142941	182379
WH1474	0.81	0.81	+	26369	32120	47345	112395	141422	
W42061	0.79	0.80	+	35274	44660	61359	146633	183720	
WH2046	0.72	0.76	-	9222	12573	23393	47729	63214	
WH2126	0.82	0.77		27794	119100	145106	40619	34072	102991
WH2127	0.79	0.79		25276	59359	88051	70108	122308	190738
WH2123	0.95	0.80		56304	177422	209447	73396	165426	204489
WH2224	0.67	0.76	+	60034	89991	112782	275538	361090	
WH2324	0.27	0.77	+	45211	74622	71309	120451	194951	
WH2304	0.87	0.90		34698	106304	121225	61694	124635	231741
W42314	0.97	0.81		39043	95489	109421	67612	121225	151464
WH2317	0.89	0.92		32221	111879	126354	62457	120033	193773
W42316	0.81	0.81		55327	137120	170210	71440	127263	194571

MB = Method Blank
 N = Native TOSS Soils
 S = Synthetic/Portified Field Blank
 PE = Performance Evaluation Sample
 MPC = Maximum Possible Concentration

FB = Field Blank
 IS = Internal Standard
 RF = Refun
 ND = Not Detected
 RS = Recovery Standard

FORM B-1S TCDD SOIL DATA REPORT FORM

Page 1 of 2

Lab: TMS ANALYTICAL SERVICES

Report Date: 09/08/88

HERC250A ISOMER SPECIFIC

Column: SP2331; 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 597CNSD

CLIENT	-----					
Sample	Extr.		ug/kg	TCDD	GC/MS	Analysis
Number	Date	Net Wt.	Meas.	MFC	Date	Time

2016	09/06/88	10.14	0.16	N/A	09/06/88	1918
2019	09/06/88	10.05	1.79	N/A	09/06/88	1950
2021	09/06/88	10.13	1.98	N/A	09/06/88	2023
2022	09/06/88	10.14	1.68	N/A	09/06/88	2056

MB	MB = Method Blank	FB = Field Blank
N	N = Native TCDD Spike	IS = Internal Standard
D	D = Duplicate/Fortified Field Blank	RR = Rerun
PE	PE = ENSL-IV Performance Evaluation Sample	ND = Not Detected
MFC	MFC = Maximum Possible Concentration	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 09/08/88

HERCE50A ISOMER SPECIFIC

Column: SP2331; 60M X 0.25

Instrument ID: HP 5970MSD

ISOMER SPECIFIC FOR 2,3,7,8-TCDD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	320/ 322	332/ 334IS	259	320	322	328	332IS	334IS	
2016	0.79	0.77	ND	27868	35129	241542	827625	1070479	
2019	0.73	0.79	46323	148946	202097	177995	425423	541045	
2021	0.90	0.78	47572	159765	178174	156992	365055	467855	
2022	0.74	0.79	46409	151979	218375	213191	487405	617405	

MB = Method Blank
 N = Native TCDD Spike
 D = Duplicate/Fortified Field Blank
 PE = EMSL-LV Performance Evaluation Sample
 MPC = Maximum Possible Concentration

FB = Field Blank
 IS = Internal Standard
 ER = Rerun
 ND = Not Detected
 RS = Recovery Standard
 NQ = Not Quantitated

Lab: TMS ANALYTICAL SERVICES

Report Date: 09/08/88

HERC251A ISOMER SPECIFIC

Column: SP2331; 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT						
Sample Number	Extr. Date	Wet Wt.	ug/kg Meas.	TCDD MPC	GC/MS Date	Analysis Time
MR	09/06/88	10.00	0.00	0.17	09/07/88	1925
SB	09/06/88	10.00	0.00	0.22	09/07/88	1958
FE-A	09/06/88	5.00	0.96	N/A	09/07/88	2031
2427	09/06/88	10.00	2.79	N/A	09/07/88	2104
2060	09/06/88	10.00	1.42	N/A	09/07/88	2136
55	09/06/88	10.00	0.84	N/A	09/07/88	2209
2096	09/06/88	10.05	1.11	N/A	09/07/88	2242
2107	09/06/88	10.10	0.78	N/A	09/07/88	2315
2260	09/06/88	10.20	1.15	N/A	09/07/88	0232
2261	09/06/88	10.09	1.32	N/A	09/07/88	0305
2262	09/06/88	10.11	1.45	N/A	09/07/88	0338
2284	09/06/88	10.18	0.33	N/A	09/07/88	0410
2307	09/06/88	10.04	1.69	N/A	09/07/88	0443

MB	MB = Method Blank	FB = Field Blank
N	N = Native TCDD Spike	IS = Internal Standard
D	D = Duplicate/Fortified Field Blank	RR = Rerun
PE	PE = EMSL-LV Performance Evaluation Sample	ND = Not Detected
MPC	MPC = Maximum Possible Concentration	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 09/08/88

HERC251A ISOMER SPECIFIC

Column: SP2331; 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	320/ 322	332/ 334IS	259	320	322	328	332IS	334IS	
MB	ERR	0.74				247194	558067	749978	
SB	ERR	0.78				194449	446494	569987	
PE-A	0.80	0.78	ND	56045	70280	124835	284404	365543	
2027	0.78	0.79	69316	235118	303316	180506	420671	533289	
2060	0.69	0.78	55107	198779	287825	224320	740418	947187	
SS	0.64	0.79	41473	109488	130870	306651	623217	788052	
2096	0.80	0.79	51493	126013	157681	241605	531049	673117	
2107	0.76	0.80	45176	129587	171487	357993	832741	1046660	
2260	0.81	0.80	58455	190975	234972	333870	801326	1001701	
2261	0.84	0.77	104895	181165	215992	326145	642439	830022	
2262	0.76	0.82	61297	157123	205940	249052	553370	673921	
2286	0.85	0.77	ND	36727	43269	237560	514532	665994	
2307	0.76	0.80	40821	168846	221003	223002	506154	633639	

MB = Method Blank
N = Native TCDD Spike
D = Duplicate/Fortified Field Blank
PE = EMSL-LV Performance Evaluation Sample
MPC = Maximum Possible Concentration

FB = Field Blank
IS = Internal Standard
RR = Rerun
ND = Not Detected
RS = Recovery Standard

Lab: THE ANALYTICAL SERVICES

Report Date: 09/09/88

METHOD: ISOMER SPECIFIC

Column: SP8801: 50M X 0.25

ISOMER SPECIFIC POF 2,3,7,8-TOC

Instrument ID: HP 5676MSD

CLIENT	-----					
Sample	Expr.		ug/kg	TOC	ELMS	Analysis
Number	Date	Wet Wt.	Meas.	MPC	Date	Time

2120	09/06/88	10.11	11.84	N/A	09/13/88	1239
2121	09/06/88	10.10	7.48	N/A	09/13/88	1241
2206	09/06/88	10.20	0.89	N/A	09/13/88	1338
2218	09/06/88	10.07	0.97	N/A	09/13/88	1416
2227	09/06/88	10.00	1.05	N/A	09/13/88	1-37

MB	MB = Method Blank	FB = Field Blank
N	N = Native TOC Spike	IS = Internal Standard
D	D = Duplicate/Fortified Field Blank	RR = Rerun
PE	PE = EPA-821 Performance Evaluation Sample	ND = Not Detected
MFC	MFC = Maximum Possible Concentration	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 09/08/88

HEXACHLOROCYCLOHEXANE SPECIFIC

Column: 6F0201; 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	320/ 322	322/ 33419	257	320	322	328	33218	33419	
2129	0.77	0.78	420419	1591522	8366892	278341	662761	647631	
2131	0.74	0.83	146269	546724	715566	181404	345950	432615	
2206	0.84	0.80	27374	23142	31102	182415	421490	536501	
2208	0.76	0.72	47253	79739	105315	185593	392097	540757	
2257	0.67	0.79	93022	202669	311773	449225	1052101	1325129	

ME = Method Blank
N = Native TCDD Spike
D = Duplicate/Fortified Field Blank
FE = ENSL-LV Performance Evaluation Sample
MPC = Maximum Possible Concentration

FB = Field Blank
IS = Internal Standard
RR = Retention
ND = Not Detected
RS = Recovery Standard

FORM B-1S TCDD SOIL DATA REPORT FORM

Lab: TMS ANALYTICAL SERVICES

Report Date: 09/20/88

HERC0819A ISOMER SPECIFIC

Column: SP2331: 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

09/20/88

CLIENT

Sample Number	Extr. Date	Wet Wt.	ug/kg Meas.	TCDD MPC	GC/MS Date	Analysis Time
2316	07/28/88	5.08	2.69		08/19/88	1857

- | | | | |
|-----|--|----|------------------------|
| MB | MB = Method Blank | FB | FB = Field Blank |
| N | N = Native TCDD Spike | IS | IS = Internal Standard |
| D | D = Duplicate/Fortified Field Blank | RR | RR = Rerun |
| PE | PE = ENSL-LV Performance Evaluation Sample | ND | ND = Not Detected |
| MPC | MPC = Maximum Possible Concentration | RS | RS = Recovery Standard |

Lab: TMS ANALYTICAL SERVICES

Report Date: 09/20/88

HERC0819A ISOMER SPECIFIC

Column: SP2331; 60M x 0.25

ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT Sample Number	Relative Response Ratios		Response (Area)						
	320/ 322	332/ 33415	259	320	322	328	33215	33415	
2316	0.89	0.87	NQ	42696	47708	26546	69807	80676	

MB = Method Blank
 M = Native TCDD Spike
 D = Duplicate/Fortified Field Blank
 FE = ENSL-LV Performance Evaluation Sample
 MPC = Maximum Possible Concentration

FB = Field Blank
 IS = Internal Standard
 RR = Rerun
 ND = Not Detected
 RS = Recovery Standard
 NQ = Not Quantitated

Lab: TMS ANALYTICAL SERVICES

Report Date: 09/20/88

HERC0919A ISOMER SPECIFIC

Column: SP2331: 60M X 0.25

ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT						
Sample Number	Extr. Date	Wet Wt.	ug/kg Meas.	TCDD MPC	GC/MS Date	Analysis Time
2354	09/16/88	9.78	6.52		09/19/88	1549

MB	MB = Method Blank	FB = Field Blank
N	N = Native TCDD Spike	IS = Internal Standard
D	D = Duplicate/Fortified Field Blank	RR = Rerun
PE	PE = ENSL-LV Performance Evaluation Sample	ND = Not Detected
MPC	MPC = Maximum Possible Concentration	RS = Recovery Standard

Lab: TMS ANALYTICAL SERVICES

Report Date: 09/20/88

HERCO919A ISOMER SPECIFIC

Column: SP2331: 60M X 0.25
ISOMER SPECIFIC FOR 2,3,7,8-TCDD

Instrument ID: HP 5970MSD

CLIENT	Relative		Response (Area)						
	Response	Ratios							
Sample	320/	332/							
Number	322	33415	259	320	322	328	33215	33415	
2354	0.76	0.79	77620	270860	357104	NQ	214633	272213	

MB = Method Blank
 N = Native TCDD Spike
 D = Duplicate/Fortified Field Blank
 PE = ENSL-LV Performance Evaluation Sample
 MPC = Maximum Possible Concentration

FB = Field Blank
 IS = Internal Standard
 RR = Rerun
 ND = Not Detected
 RS = Recovery Standard
 NQ = Not Quantitated