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RCRA Facility Investigation (RFI) Phase I Report

Volume 4 (Appendix G)

Waste Management of Ohio, Inc.
Vickery, Ohio

U.S. EPA ID No. OHD 020 273 819

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United States Environmental Protection Agency Region 5
Waste Management Branch
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Chicago, Illinois 60604-3590

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October 1999

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C Daily Field Report Forms
D Summary of Background Exceedances
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F Historical Groundwater Data and Validation Report

VOLUME 4

G Closure Report Data

VOLUME 5

H Summary of Analytical Data

VOLUMES 6 & 7

I Analytical Data Validation Reports

APPENDIX G

Closure Report Data

Golder Associates Inc.

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Fax (404) 934-9476

Golder Associates

LETTER REPORT ON

REVIEW OF THE L-19 INVESTIGATION
POTENTIAL SOURCE OF GROUNDWATER CONTAMINATION
VICKERY, OHIO FACILITY

Submitted to:

Chemical Waste Management, Inc.
3956 State Route 412
Vickery, Ohio 43464

DISTRIBUTION:

3 Copies - Chemical Waste Management, Inc. - Vickery, Ohio
1 Copy - Ohio Environmental Protection Agency
2 Copies - Golder Associates Inc.

March 1992

923-3370

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Golder Associates

March 25, 1992 923-3370

Mr. Steve Lonneman
Chemical Waste Management, Inc.
3956 State Route 412
Vickery, Ohio 43464

RE: LETTER REPORT ON REVIEW OF THE L-19 INVESTIGATION
POTENTIAL SOURCE OF GROUNDWATER CONTAMINATION
VICKERY, OHIO FACILITY

Dear Mr. Lonneman:

As requested in your letter to Golder Associates Inc. (Golder Associates) dated March 13, 1992, Golder Associates has reviewed the data in the L-19 Investigation Report. The review was performed primarily to evaluate potential sources of the contamination identified from analyses of groundwater samples obtained from well L-19. The lacustrine soils tested around well L-19 did not have contamination detected in them. Therefore, as previously concluded, the probable source of contamination in well L-19 is water flowing through the fill, then downward through the desiccated zone to the well screen interval. This conclusion is based on information contained in the L-19 Investigation Report and previous reports submitted to OEPA. No new information has been included in this letter report.

Background

As part of the Consent and Final Order (CAFO) entered into between the United States Environmental Protection Agency (USEPA) and Chemical Waste Management, Inc. (CWM) on April 4, 1985, a groundwater monitoring program was developed and implemented for the Vickery, Ohio, facility. Subsequently, the Ohio Environmental Protection Agency (OEPA) conducted a groundwater monitoring operation and maintenance inspection in April 1989, with a report submitted on August 28, 1989. The OEPA report stated that since the groundwater samples from monitoring well L-19 had consistently indicated the presence of 1,2-dichloroethane (1,2-DCA), this well was considered contaminated. As a result, CWM conducted an investigation of the area around L-19. The report on this investigation, dated July 24, 1990, was prepared by Golder Associates.

The groundwater monitoring program for the Vickery Facility included wells in the lacustrine materials, till materials, and the underlying bedrock materials. Each of these wells were designated L-, T-, or MR-. Therefore, well L-19 is a lacustrine well. The general location for the Vickery Facility is shown on attached Figure 1 and the approximate locations of well L-19 and investigation borings are shown on the attached Figure 2. The boring log for well L-19 and the well construction notes are also included as Attachment A to this letter report.

Geology

The site geology and hydrogeology have been extensively evaluated at the Vickery Facility. Generally, the site is underlain by about 33 feet to 52 feet of glacial overburden materials, consisting of lacustrine clay and glacial till. Underlying these overburden materials is a dolomite bedrock about 500 feet thick, which constitutes the uppermost aquifer underlying the facility. The dolomite bedrock is subsequently underlain by a sequence of sedimentary rocks comprising shales, sandstone, limestone, and dolomite. Granite bedrock ("basement rock") is encountered at a depth of about 2,900 feet beneath the ground surface. The lacustrine soils are generally encountered in the area of the active facility and have been found to vary from a depth of 0 feet to 25 feet beneath the ground surface. The typical thickness of the lacustrine soils is about 15 feet.

Surficial soils at the facility have been subject to historic desiccation, possibly to depths of 10 feet to 20 feet below the ground surface, due to water level variations and alternate wetting and drying of these materials. Thus, the materials have been consolidated, with greater degrees of consolidation near the ground surface. The depth of desiccation has been delineated by lower moisture contents, stiffer consistency, higher strength, and lower unit weight than those encountered at deeper depths in the overburden, as illustrated from the data on the attached Figures 3 and 4. Also, as shown on Figure 3, this depth is transitional. Below the level of desiccation, the lacustrine and till soils are typically soft, have a relatively high moisture content and are near normally consolidated. The softer materials are indicated by much lower standard penetration resistance, or blow counts, which generally range from 4 to 10. Figure 5 shows that elevated concentrations of tritium only penetrated to a depth of 17 feet below the ground surface. This also illustrates some connection between surface water and the desiccated zone.

Evaluation

The L-19 investigation was performed in June 1990. During this program, four boreholes were drilled around L-19, at about the location shown on Figure 2. Each boring was advanced to a depth of about 22 feet using auger drilling methods. Copies of the borehole logs are included in Attachment B. During the investigation, soil samples were collected using split spoon samplers and tested in the

field for the occurrence of organics using a Foxboro Century 128 organic vapor analyzer. The samples with the ten highest total volatile organic compound readings were sent to Environmental Testing and Certification Corporation (ETC) for analysis for 1,2-DCA. In addition, the groundwater in each of the boreholes was allowed to recover, the borehole was bailed dry, and then allowed to recover again. Each recovery period was about 24 hours. Subsequently, samples of groundwater were collected for analyses for 1,2-DCA by ETC. Details of the investigation and sampling and analyses are provided in the "Investigation at Well L-19, Vickery, Ohio, Facility" report dated June 24, 1990.

As indicated in the "Monitoring Well System, Analytical Data Evaluation, Vickery, Ohio Facility" report dated April 22, 1988, Golder Associates believes that the occurrence of 1,2-DCA in groundwater samples from well L-19 are due to localized releases associated with spills or leaks due to past waste handling practices in the area. The data do not suggest that there is evidence of overall contamination or chemical plume. The results from the L-19 investigation do not alter this evaluation. In particular, analysis of the soil samples that were obtained in the boreholes drilled around well L-19 did not indicate the presence of 1,2-DCA above the detection limits. Therefore, the presence of this compound as a contaminant in the soil samples was not demonstrated. Water samples collected from these boreholes, however, did show some presence of 1,2-DCA; concentrations were encountered up to about two parts per million. Therefore, groundwater in the vicinity of well L-19 does contain 1,2-DCA.

Lacustrine soils in the vicinity of well L-19 were encountered at depths of 9 feet to 19 feet beneath the ground surface, beneath the fill, and generally within the zone of desiccation. Well L-19 has an open interval beginning about three feet beneath the top of the lacustrine soils which is partially, or completely, within this zone of desiccation. Further, each of the boreholes that were sampled was open to the fill above the lacustrine till. As indicated in attached borehole logs, the depth to water was between three feet and eight feet beneath the ground surface. In each of these holes, the depth to lacustrine material was about seven feet beneath the ground surface. Also, in each of these holes the material became softer at a depth of about 16 feet beneath the ground surface. Finally, as shown on the sampling sheets in Attachment C the depth to water at the time of sampling was also at about three feet to eight feet beneath the ground surface. These data suggest that the source of contaminated groundwater is likely the groundwater in the fill material above the lacustrine soils. The higher blow counts in the lacustrine material above the depth of 16 feet are consistent with past information suggesting desiccation of the surface materials. Therefore, the water that is being sampled in L-19, which was sealed about 3 feet into the lacustrine material, is likely due to the short circuiting or flow from the overlying fill material downward into the well interval, possibly through desiccation cracks.

The premise of hydraulic connection of L-19 with the overlying fill material is also substantiated by past water level data collected by the site indicating higher water levels in L-19 after rainfall events. This also indicates a higher degree of connection at well L-19 than observed elsewhere in the facility. This higher degree of connection with the surface could allow communication of contaminated water in the fill with the well screen interval.

Finally, an additional suggestion that the contamination is due to localized spills, rather than from the ponds or the waste piles, is indicated by the occurrence of 1,2-DCA in well L-19 only . Based on the proximity of the wells to the ponds or the stockpile area, flows through the ground into L-14, L-15, L-16, L-20, and L-28, would be indicative of releases from the ponds. Groundwater samples from none of these wells have had 1,2-DCA detected in them. Further, if the presence of 1,2-DCA at L-19 was due to releases from the stockpile area due to consolidation of the underlying material from the height of the stockpile, contaminants should also be found in L-16 and L-26. Again, groundwater from neither of these wells has contained 1,2-DCA. Therefore, the occurrence of 1,2-DCA in groundwater samples from well L-19 is still suspected to be due to contaminants in the overlying fill.

If you have any questions, please do not hesitate to contact us.

Very truly yours,

GOLDER ASSOCIATES INC.

James F. Durrett, P.G.
Project Hydrogeologist

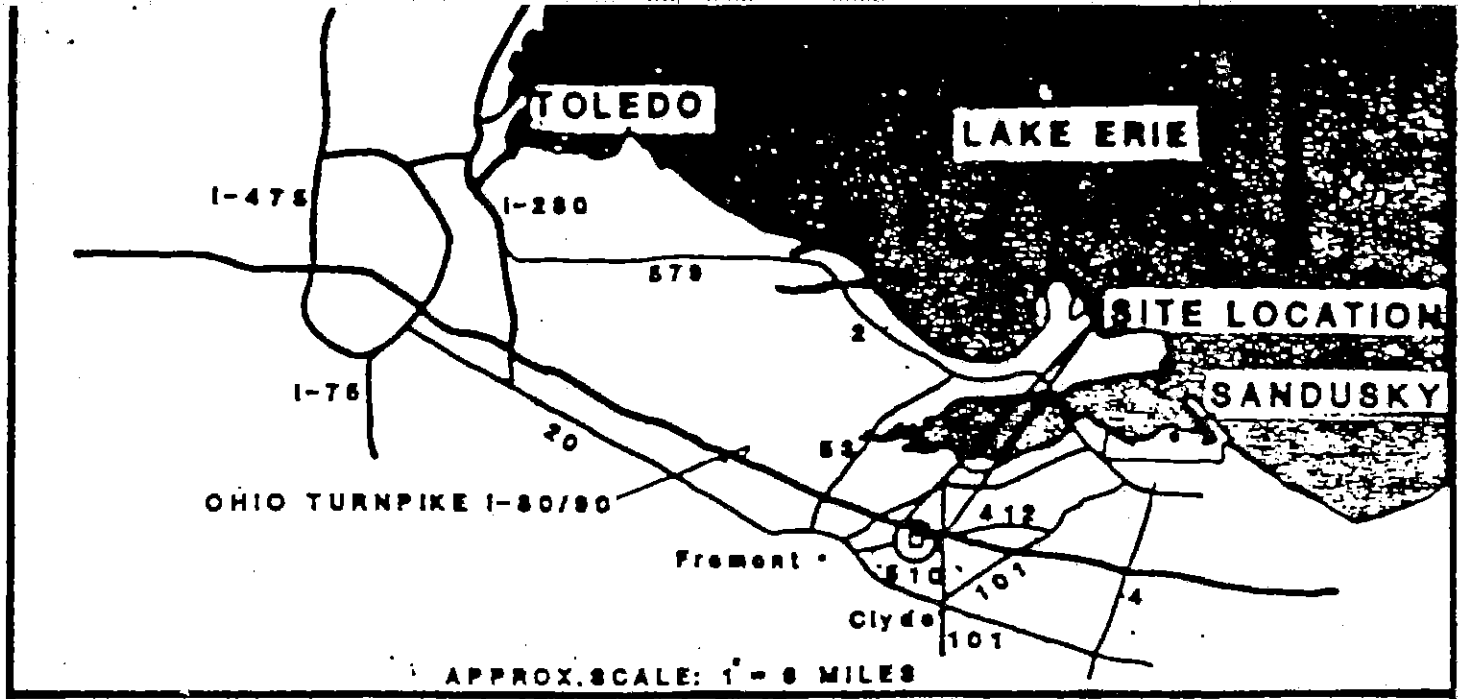
John F. Clerici, P.E.
Principal

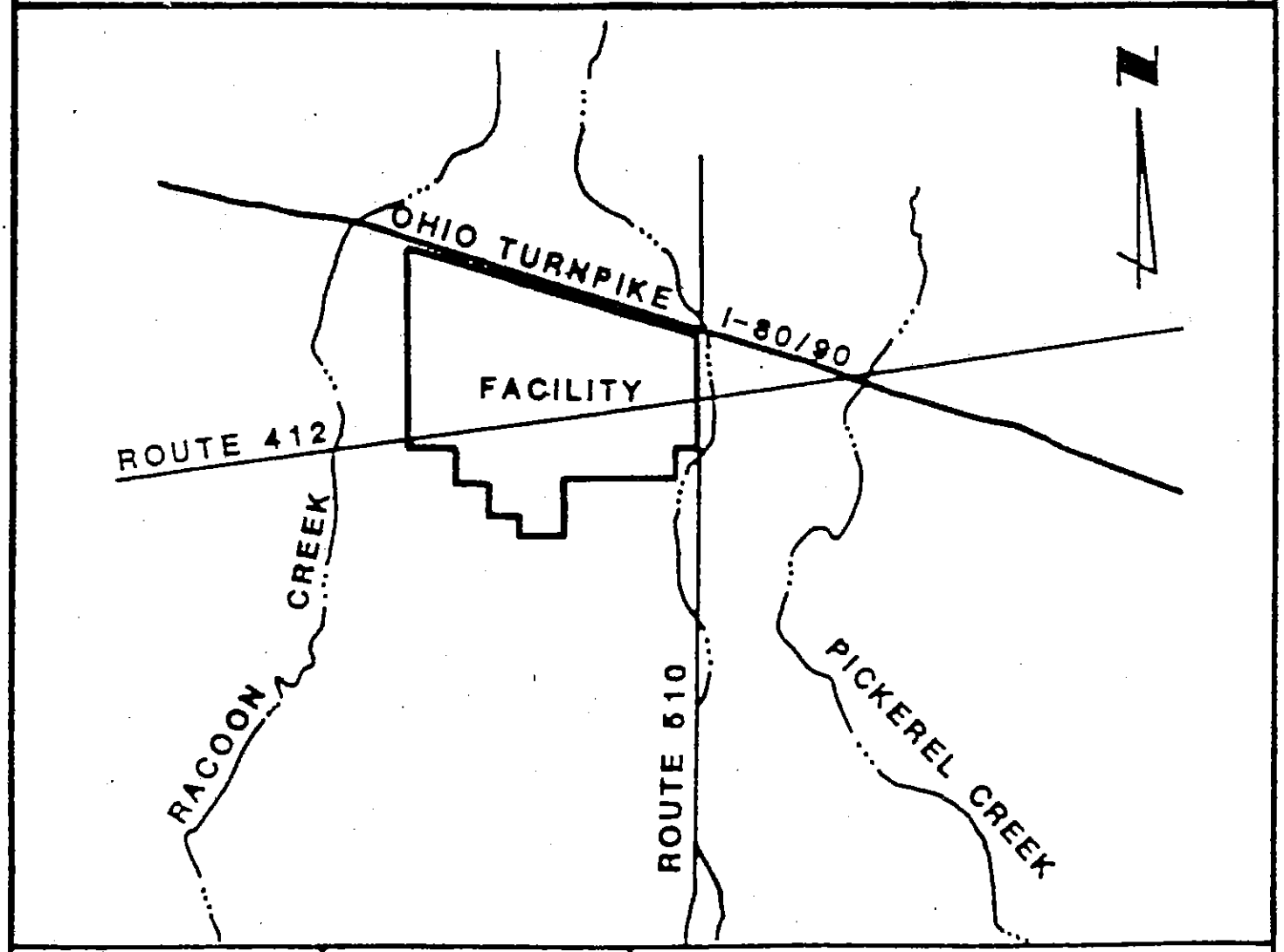
JFC:maa

ATTACHMENTS:

FIGURE 1 - Site Location Plan
FIGURE 2 - Well L-19 Investigation Location
FIGURE 3 - Engineering Properties of Glacial Deposits
FIGURE 4 - Shear Strength Profile for Closure Cell Area
FIGURE 5 - Tritium and Chloride Concentrations Versus Depth Below Ground Surface
ATTACHMENT A - Monitoring Well Installation Log
ATTACHMENT B - Borehole Logs
ATTACHMENT C - Chemical Analysis Data

FN: 3370REV.L19\15\MAA





JOB NO. 834-1358	SCALE NO SCALE	SITE LOCATION PLAN
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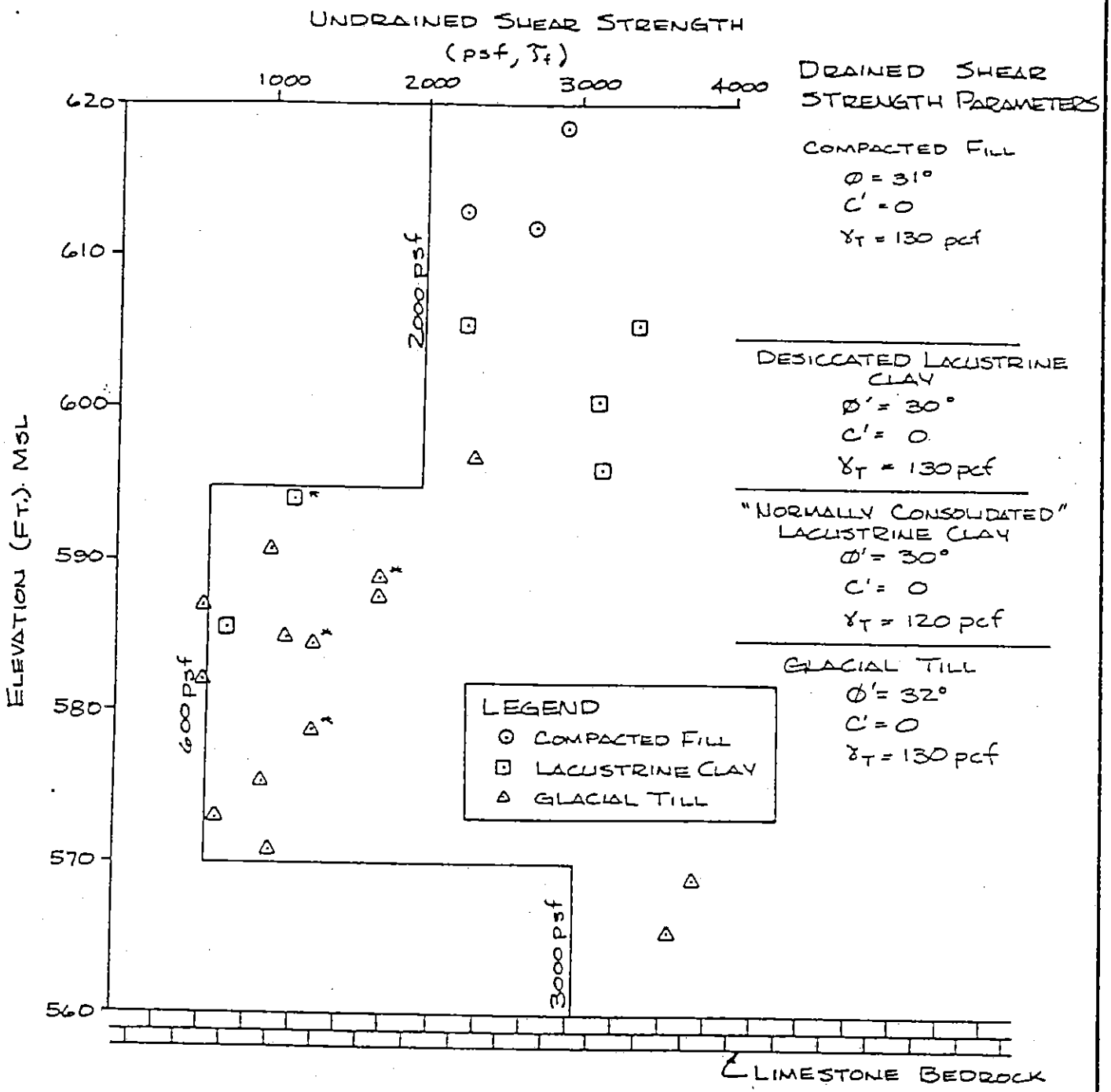
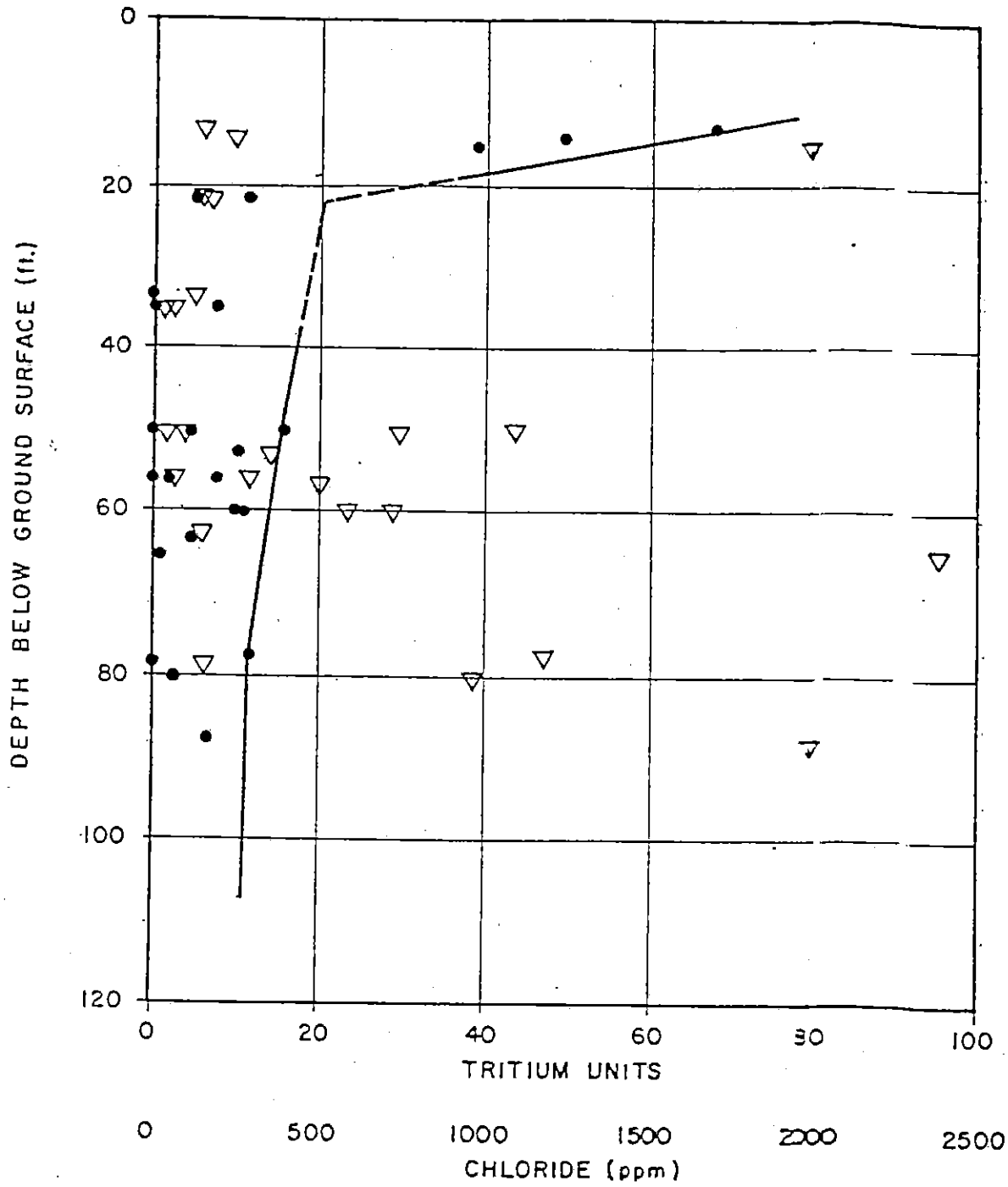
CHECKED WAD	DWG. NO. 391	
Golder Associates	CHEMICAL WASTE MANAGEMENT, INC.	FIGURE 1



* FIELD VANE SHEAR TESTS DENOTED WITH AN ASTERISK MAY HAVE BEEN RUN AT A TOO STRAIN RATE YEILDING UNCONSERVATIVELY HIGH VALUES OF UNDRAINED SHEAR STRENGTH

JOB NO. 834-1358	SCALE AS SHOW	SHEAR STRENGTH PROFILE FOR CLOSURE CELL AREA
DRAWN SKB	DATE 8-23-84	
CHECKED MRB	DWG. NO. 178	
Golder Associates		CHEMICAL WASTE MANAGEMENT, INC. — FIGURE 4

AF 2044DA-B



LEGEND

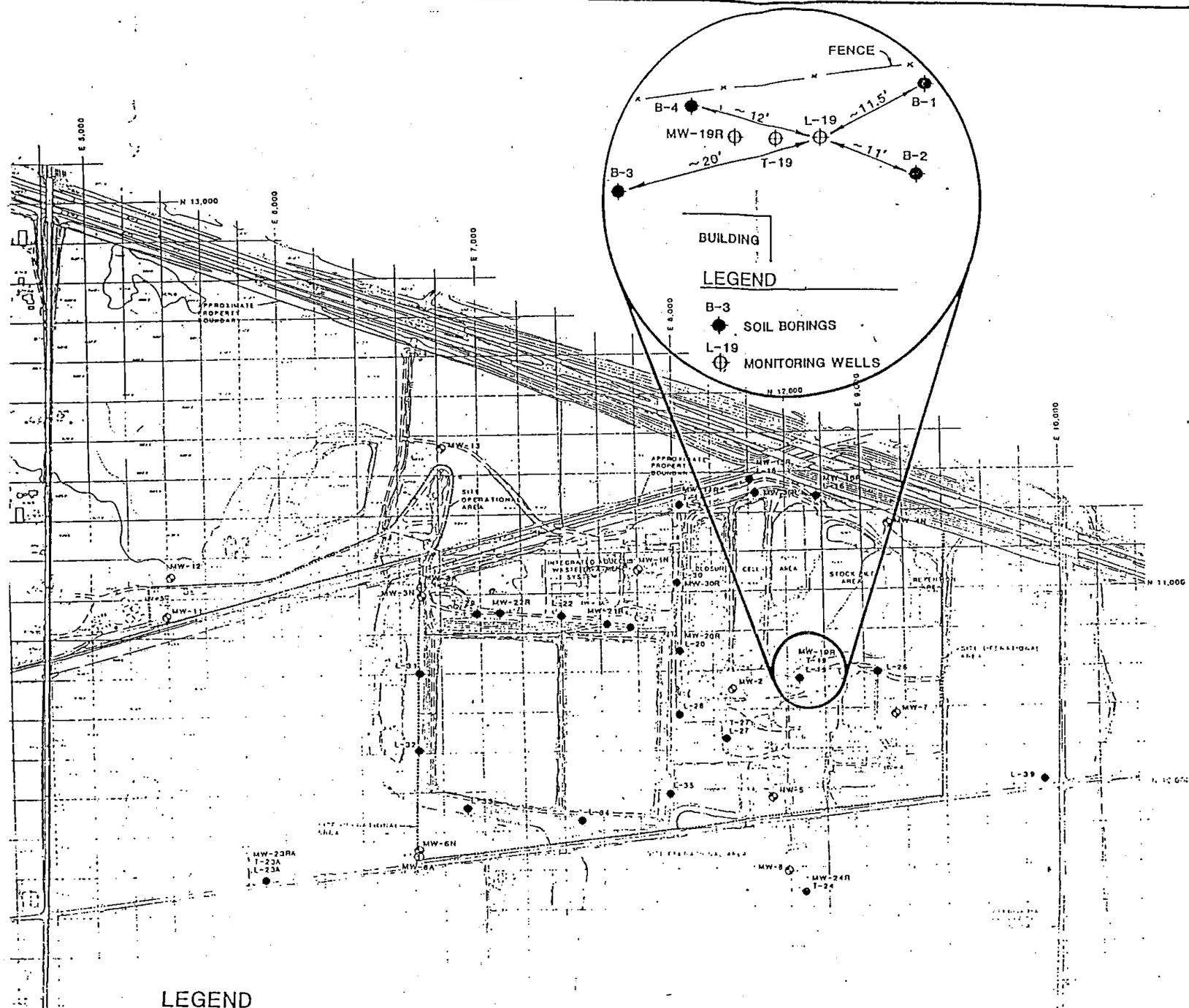
——— TREND OF H_3 VALUES

– – – INFERRED TREND OF H_3 VALUES

● TRITIUM

▽ CHLORIDE

JOB NO. 834-1358	SCALE AS SHOWN	TRITIUM AND CHLORDE CONCENTRATIONS VERSUS DEPTH BELOW GROUND SURFACE
DRAWN SKB	DATE 12-9-83	
CHECKED MTF	DWG. NO. 84	
Golder Associates	CHEMICAL WASTE MANAGEMENT, INC.	FIGURE 5



NOTES:
1. BASEMAP PROVIDED BY CHEMICAL WASTE MANAGEMENT, INC. DATE OF AERIAL PHOTOGRAPHY MARCH, 1985.
2. COORDINATES ARE APPROXIMATE TO THE NEAREST 5 FEET AND ARE BASED ON FIELD LOCATIONS OF THE WELLS. IN WELL GROUPS, WELLS ARE SPACED 3 FEET APART AND ARE GIVEN THE SAME COORDINATES.
3. MW-38R, T-38 AND L-39 WELLS ARE NOT PART OF THE RCRA MONITORING SYSTEM.
4. WELL MW-1N WAS DECOMISSIONED MARCH 1988.

WELL NUMBER	EASTINGS	NORTHINGS
L-14	8,035	11,435
L-15	8,410	11,560
L-16	8,780	11,470
L-19	8,670	10,550
L-20	8,020	10,700
L-21	7,760	10,820
L-22	7,405	10,888
L-23A	5,890	9,582
L-26	9,065	10,580
L-27	8,265	10,250
L-28	8,020	10,380
L-29	6,980	10,900
L-30	8,020	11,045
L-31	6,680	10,600
L-32	6,685	10,210
L-33	6,915	9,915
L-34	7,500	9,880
L-35	7,970	9,980
L-39	9,915	10,020
MW-2	8,300	10,500
MW-5	8,515	9,950
MW-7	9,155	10,360
MW-8	8,600	9,580
MW-11	5,395	10,905
MW-12	5,400	11,105
MW-13	6,825	11,740
MW-3A	6,710	11,040
MW-6A	6,670	9,680
MW-1N	7,810	11,110
MW-3N	6,710	10,990
MW-4N	9,130	11,330
MW-6N	6,670	9,710
MW-14R	8,035	11,435
MW-15R	8,410	11,560
MW-16R	8,780	11,470
MW-19R	8,670	10,550
MW-20R	8,020	10,700
MW-21R	7,640	10,840
MW-22R	7,095	10,900
MW-23RA	5,890	9,582
MW-24R	8,680	9,475
MW-37R	9,780	8,500
MW-38R	9,780	8,495
T-14	8,035	11,435
T-19	8,670	10,550
T-23A	5,890	9,582
T-24	8,680	9,475
T-27	8,265	10,250
T-37	9,780	8,500
T-38	9,780	8,495
MW-30R	8,020	11,035
MW-36R	8,453	11,492

SCALE IN FEET

LEGEND

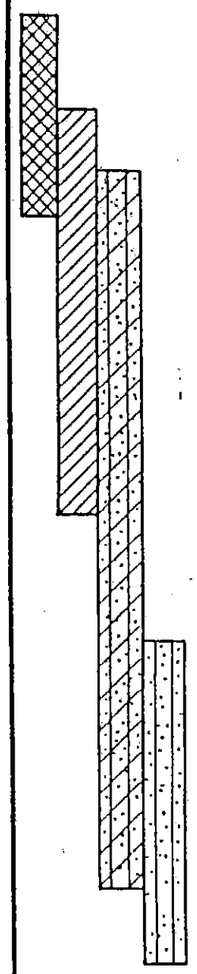
- EXISTING BEDROCK MONITORING WELLS
- EXISTING OVERBURDEN MONITORING WELLS
- "RCRA 265" MONITORING WELLS
- MW-19R DESIGNATES BEDROCK WELLS
- T-19 DESIGNATES TILL WELLS
- L-19 DESIGNATES LACUSTRINE WELLS

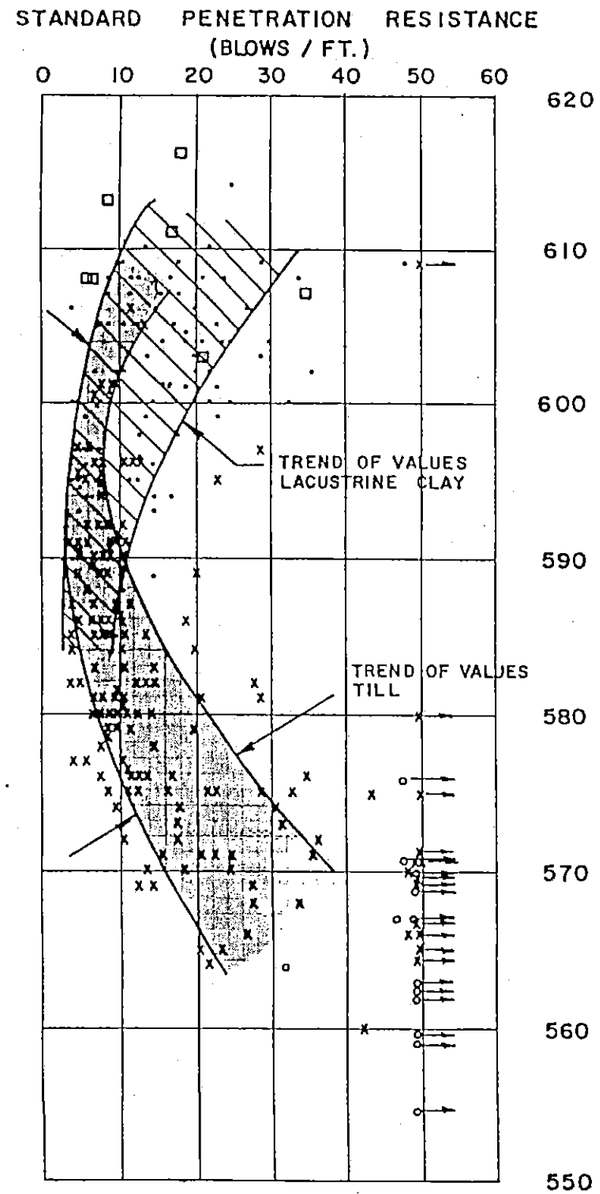
Golder Associates
Atlanta, Georgia

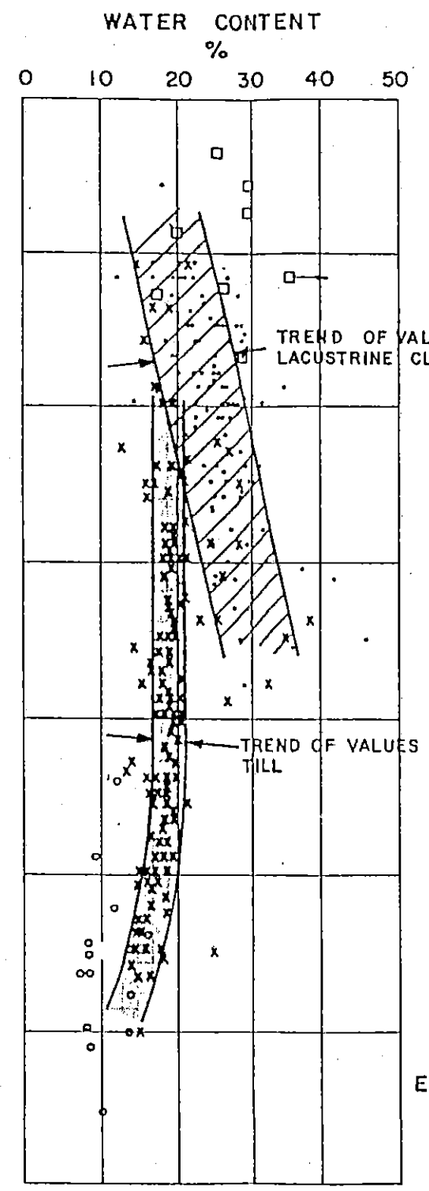
CLIENT/PROJECT
CHEMICAL WASTE MANAGEMENT, INC.

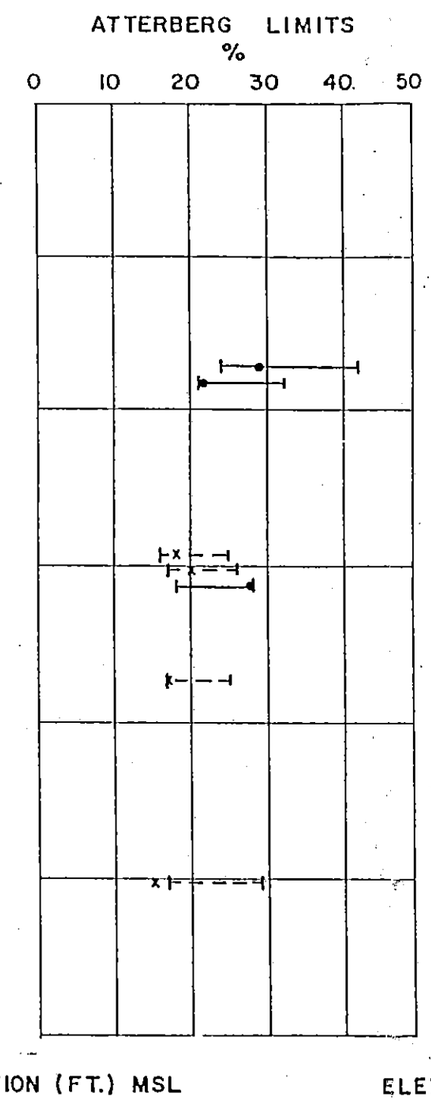
TITLE
WELL L-19 INVESTIGATION LOCATION

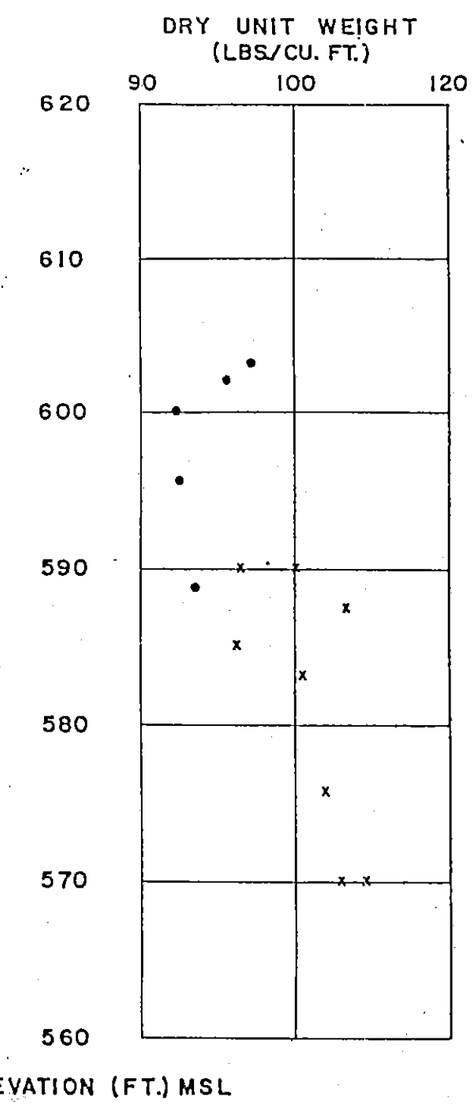
DRAWN	CHECKED	REVIEWED	DATE	SCALE	JOB NO.
JLW			7/19/90	AS SHOWN	853-3027
			FILE NO. 834-1358	DWG. NO. / REV. NO. 629	FIGURE 2











STRATIGRAPHY	SYMBOL
GRAVEL TO CLAYEY SILT (FILL)	□
SOFT TO HARD BROWN TO GRAY CLAY TO CLAYEY SILT (GLACIO – LACUSTRINE CLAY)	•
SOFT TO HARD BROWN TO GRAY CLAYEY SILT, SOME SAND, TRACE GRAVEL (TILL)	x
HARD GRAY SILT, SOME SAND AND GRAVEL AND CLAY (LOWER TILL)	o

NOTE : FROM BOWSER-MORNER BORING DATA.

JOB NO. 834-1358	SCALE AS SHOWN	ENGINEERING PROPERTIES OF GLACIAL DEPOSITS	
DRAWN CAB	DATE 4-26-83		
CHECKED GHC	DWG. NO. 3		
Golder Associates		CHEMICAL WASTE MANAGEMENT, INC.	FIGURE 3

PERIMETER REPROGRAPHICS

ATTACHMENT A

MONITORING WELL INSTALLATION LOG

MONITORING WELL INSTALLATION LOG

JOB NO 053-3020 PROJECT CWTM / PICKERY / OU WELL NO. L-19 SHEET 1 OF 1
CA REP L.E. JOC DRILLING METHOD AUGER / ROTARY GROUND ELEV 616.5 WATER DEPTH 11.52'
WEATHER SUNNY DRILLING COMPANY BOWMER MORNER COLLAR ELEV 617.97 DATE/TIME 10/24/95 11:
TEMP DRILL RIG CME 55 DRILLER T. ROEHNER STARTED 1000/10/95 COMPLETED 1PM 10/24/95
(TIME / DATE) (TIME / DATE)

MATERIALS INVENTORY

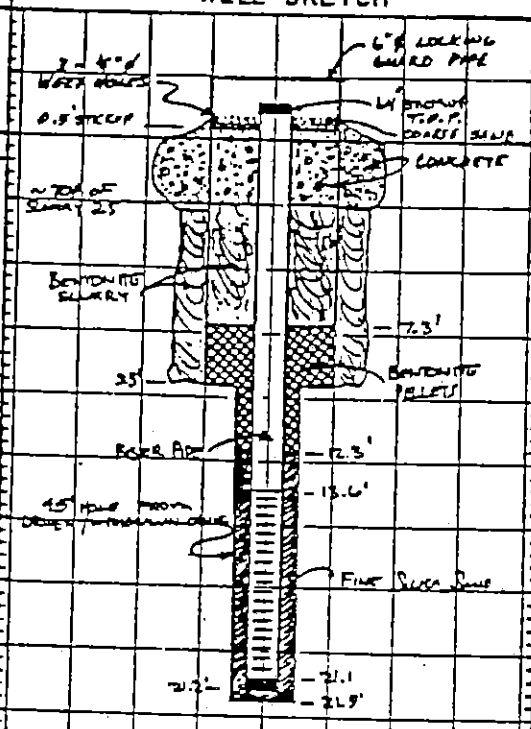
WELL CASING 2 in. dia. 15.0' ft
CASING TYPE 316 STAINLESS STEEL
JOINT TYPE FLUSH COUPLED
GROUT QUANTITY —
GROUT TYPE BENTONITE SLURRY

WELL SCREEN 2 in. dia. 7.5' ft
SCREEN TYPE 316 STAINLESS WIRE WOUND
SLOT SIZE 0.0060 in
CENTRALIZERS NONE
DRILLING MUD TYPE NONE

BENTONITE SEAL PELLETS
INSTALLATION METHOD GRAVITY FALL
FILTER PACK QTY ~5.5 GALS
FILTER PACK TYPE FINE SILICA SAND
INSTALLATION METHOD GRAVITY FALL

ELEV/DEPTH	SOIL/ROCK DESCRIPTION
	GROUND SURFACE
0.0	
1.0	FIRM TO STIFF, BROWN-TAN, CLAYEY SILT, LITTLE F-C SAND, LITTLE F-C GRAVEL (FILL)
8.5	FIRM, BLACK, BROWN, CLAYEY SILT, TRACE ORGANICS
9.4	FIRM TO STIFF, GRAY-TAN, MOTTLED, SILTY CLAY, TRACE FINE SAND (LACUSTRINE)
11.2	LOOSE TO COMPACT, BROWN SILT, SOME FINE SAND (LACUSTRINE)
12.8	SOFT TO STIFF, TAN-GRAY, LAMINATED SILTY CLAY, TRACE FINE SAND (LACUSTRINE)
19.0	SOFT TO HARD, GRAY SILTY CLAY, TRACE F-C SAND, TRACE F-C GRAVEL (TILL)
21.9	

WELL SKETCH



INSTALLATION NOTES

Attached

WL 10.1 B67

WELL DEVELOPMENT NOTES

WELL DEVELOPED BY BAILING AND SURGING WITH 1" SS STAINLESS STEEL BAILER.

BAILER AND TEFLON CHECK VALVE WAS STEAM CLEANED AND RINSED WITH DEIONIZED WATER BEFORE EACH USE.

TOTAL VOLUME REMOVED DURING DEVELOPMENT WAS APPROX. 8-4 gallons. CAPACITY OF WELL WELL STATIC W.L. IS 11.47' (1-10-96) BELOW TOP OF RISER @ 1.5 GALS.

MEASUREMENTS DURING DEVEL.

DATE	FINAL DT BAILER	pH	SPECIFIC COND.	COMMENTS
11-13-95	2.0	6.4	7,500	
11-17-95	2.2	6.5	7,300	WATER MILKY
11-19-95	2.2	6.7	6,700	TURBID
11-22-95	2.0	—	—	FREQUENT TEST PERFORMED

STATIC W.L 1-10-96 WAS 11.47'

Golder Associates	SUBJECT WELL INSTALLATION NOTES		
	Job No. 853-3020 Ref. L-19	Made by JCC Checked Reviewed GSL	Date 11-6-85 Sheet 1 of 2

1. a) Augered 10" Ø hole to 9.5' bgs. Sounded hole at 8.9'. Reaugered to 9.5'. Sounded hole at 9.5'

b) Set 10' 6" Ø surface casing bottoming @ 9.5'.

c) Grouted borehole annulus (between 6" casing and 10" auger hole) with bentonite grout slurry. Used 20 gals. of bentonite bottom ~ 5 gal overflow.

d) 6" Ø casing was drilled and flushed to 9.5 until clean. Bailed to within 0.5' of bottom of hole.

2. a) Drove 4" Ø casing from 9.5 to 15.0. Drilled and flushed clean. Sounded hole at 14.9'. Hammered casing from 14.9' to 21.9. Drilled and flushed clean. Bailed water to within 0.5 of bottom. Sounded @ 21.9

b) Pulled 4" Ø casing up a foot. Sounded at 21.9. Added 0.7' of sand. Set 7.5' screen and 13.0' of riser pipe. Stickup of riser pipe is 1.3' (0.1 ft at end cap on bottom of screen)

c) Backfilling: 4" Ø casing was pulled up a foot at a time and added sand. Sounded last time to ensure no sloughing of hole or sand bridge had occured. Backfilled sand to 12.3' bgs. Calculated amt. sand used was ~ 5.7 gals. Sample of sand was taken.

d) 4" Ø casing was pulled up a foot and pellets were added up to 7.3. Pulling up a foot at a time and rounded to ensure no sloughing or bridging had occured. Volume of pellets used was ~ 4.4 gal. (calculated).

e) Remaining open borehole annulus was filled with bentonite slurry to ground surface.

3. a) Water level upon completion was 11.52' @ 1200 on 10/28/85

4. a) Aluminum 6" Ø Protectic flush joint pipe was threaded on to the 6" Ø surface casing and secured with a lock.

5. a) The well cap was vented by drilling a small hole in the cap.

6. a) A 30' hole was hand dug around the 6" Ø surface casing and was filled with concrete. Sloped so water would run away from well.

Golder Associates	SUBJECT WELL INSTALLATION NOTES		
	Job No. 953-3020 Ref. L-19	Made by [illegible] Checked Reviewed [illegible]	Date 11-6-85 Sheet 2 of 2

7. a) Three 1/4 diameter drain holes were drilled near top of cement mound. Bentonite grout was taken out of the 6" Ø surface casing to 2.5' below ground surface. Cement was added to replace the grout removed.

b) Coarse sand was poured on top of the hardened cement to about 5 inches below the top of well pipe.

ATTACHMENT B

BOREHOLE LOGS

Golder Associates

Field Boring Log

DEPTH HOLE 21.8'	JOB NO. 852-5027.1	PROJECT CWM/L-19/VICKERY OHIO				BORING NO. B-1	
DEPTH SOIL DRILL 21.8'	QA INSP. LEL	DRILLING METHOD HOLLOW STEM AUGERS				SHEET 1 OF 2	
DEPTH ROCK CORE	WEATHER SUNNY	DRILLING COMPANY BOWSER-MORNER				SURFACE ELEV.	
NO. DIST. SA. UD. SA.	TEMP. 74°F	DRILL RIG MOBILE A-61	DRILLER JIM WALSH			DATUM	
DEPTH WL. 6.0'	HRS. PROD.	WT. SAMPLER HAMMER 140 LBS	DROP 30 IN.			STARTED 1355 (Date) 16-9-90	
TIME WL. 1436/16-11-90	HRS. DELAYED	WT. CASING HAMMER	DROP			COMPLETED 1525 (Date) 16-9-90	

SAMPLE TYPES: AS AUGER SAMPLE; CS CHUNK SAMPLE; DD DRIVE DRIVE; DS DENISON SAMPLE; PS PITCHER SAMPLE; RC ROCK CORE; ST SLOTTED TUBE; TO THIN-WALLED, OPEN; TP THIN-WALLED, PISTON; WS WASH SAMPLE

ABBREVIATIONS: BL BLACK; BR BROWN; C COARSE; CA CASING; CL CLAY; CLY CLAYEY; F FINE; FRAG FRAGMENTS; GR GRAVEL; LTD LAYERED; LI LITTLE; M MEDIUM; MIC MICACEOUS; MOT MOTTLED; NP NON-PLASTIC; OR ORGANIC; ORG ORGANIC; PH PRESSURE-HYDRAULIC; PM PRESSURE-MANUAL; R JARED; REM REMOVAL; RK ROCK; SA SAMPLE; SAT SATURATED; SD SAND; SI SILT; SLY SILTY; SOM SOME; TR TRACE; WL WATER LEVEL; WOH WEIGHT OF HAMMER; Y YELLOW

SOIL DESCRIPTION - RANGE OF PROPORTION: TRACE 0-1%; LITTLE 1-10%; SOME 10-20%; AND 20-35%

ELEV. DEPTH	DESCRIPTION	BLOWS/FT	SAMPLES NO.	TYPE	BLOWS 6" (PORCH)	REC./ATT	TP REC	SAMPLE DESCRIPTION AND BORING NOTES
								11.4' NE of L-19
2	Firm to stiff gray to brown CLAYEY SILT to SILTY CLAY little to some f sand, trace m-c sand, trace organic matter (FILL)	9	1	DD	2.3.6.7	8/24		(1A) 0.0-1.6' Firm med brown CLAYEY SILT and f sand, little angular c sand fibrous roots throughout brittle dry OVA head space 0.0 ppm
4		15	2	DD	5.7.8.9	24/24		
6		7	3	DD	3.4.3.6	14/24		(1B) 1.6-2.0' Very stiff med brown CLAYEY SILT and f-m sand, brittle dry. F-C gravel layer at 1.8'. OVA head space 0.0 ppm
8	Very stiff to stiff brown and gray CLAYEY SILT, some f sand, trace wood (LACUSTRINE).	14	4	DD	4.7.7.8	24/24		(2A) 2.0-3.0' Firm to stiff med brown CLAYEY SILT and f sand trace m sand, fibrous roots, brittle, dry OVA head space 0.0 ppm.
10		17	5	DD	2.6.11.13	17/24		
12		12	6	DD	3.4.8.9	21/24		(2B) 3.0-4.0' Stiff gray and brown CLAYEY SILT and f sand, interbedded with gray and rust silt layers, dry. OVA head space 0.0 ppm
14		12	7	DD	5.5.7.10	8/24		
16		10	8	DD	3.4.6.8	24/24		(3A) 4.0-5.0' Stiff med brown CLAYEY SILT little f sand trace angular c sand, dry OVA head space 0.0 ppm
18		9	9	DD	2.4.5.5	24/24		(3B) 5.0-6.0' Firm med brown SILTY CLAY some f sand trace m sand gray silt lenses dry to moist OVA head space 0.0 ppm
20	Very soft brown to gray CLAY, trace f sand, gray w/ brown silt lamination (FILL)	5	10	DD	2.2.3.3	24/24		
22	21.8' BORING TERMINATED	5	11	DD	2.2.3.4	24/24		(4A) 6.0-7.0' Firm dark gray SILTY CLAY little to some f sand, fibrous roots, slight odor, moist OVA head space 45 ppm
								(4B) 7.0-8.0' Firm to soft brown SILTY CLAY some f sand, red brown silt layers interbedded moist OVA head space 1.7 ppm
								(5A) 8.0-9.0' Firm to stiff gray brown SILTY CLAY little f sand, trace of bark, slight to moderate odor, moist OVA head space 1000 ppm.
								(5B) 9.0-10.0' Stiff SAME AS ABOVE. OVA head space 350 ppm
								(6A) 10.0-11.0' Stiff brown and gray mottled CLAYEY SILT and f sand dry to moist. OVA head space 100 ppm.
								(6B) 11.0-12.0' SAME AS ABOVE OVA head space 95 ppm.
								(7A) 12.0-13.0' SAME AS ABOVE OVA head space 18 ppm
								(7B) 13.0-14.0' Soft SAME AS ABOVE OVA head space 34 ppm
								(8A) 14.0-15.0' Firm SAME AS ABOVE OVA head space 98 ppm
								(8B) 15.0-16.0' Stiff SAME AS ABOVE OVA head space 12 ppm
								(9A) 16.0-17.0' Very soft gray SILTY CLAY interbedded with rust silt layers moist OVA head space 42 ppm

CONTINUED ON NEXT PAGE

Golder Associates

Field Boring Log

DEPTH HOLE 21.8	JOB NO. 893-3027.1	PROJECT CWM / L-10 / VILLERY RMD				BORING NO. B-1	
DEPTH SOIL DRILL 21.8'	BA INSP. LCL	DRILLING METHOD HOLLOW STEM AUGERS				SHEET 2 OF 2	
DEPTH ROCK CORE	WEATHER SUNNY	DRILLING COMPANY BOWSEC-MORNER				SURFACE ELEV.	
NO. DIST. BA. / UD. BA.	TEMP. 74°F	DRILL RIG MOBILE B-61	DRILLER JIM WALSH			DATUM	
DEPTH WL. 6.0'	HRS. PROD.	WT. SAMPLER HAMMER 140 LBS	DROP 30 IN			STARTED 1355 (Time) / 6-9-90 (Date)	
TIME WL. 1434 / 6-11-90	HRS. DELAYED	WT. CASING HAMMER	DROP			COMPLETED 1525 (Time) / 6-9-90 (Date)	

SAMPLE TYPES: AS AUGER SAMPLE; CS CHUNK SAMPLE; DO. DRIVE OPEN; DS DENISON SAMPLE; PS PITCHER SAMPLE; RC ROCK CORE; ST. SLOTTED TUBE; TO. THIN-WALLED, OPEN; TP THIN-WALLED, PISTON; WS WASH SAMPLE

ABBREVIATIONS: BL BLACK; BR BROWN; C CHALKY; CA CASING; CL CLAY; CLY CLAYEY; F FINE; FRAG FRAGMENTS; GL GRAVEL; LYD LAYERED; U LITTLE; M MEDIUM; MIC MICACEOUS; MOT MOTTLED; NP NONPLASTIC; OB ORANGE; ORG ORGANIC; PH PRESSURE HYDRAULIC; PM PRESSURE MANUAL; R RED; RES RESIDUAL; RK ROCK; SA SAMPLE; SAT SATURATED; SD SAND; SI SILT; SLT SILTY; SM SOME; TR TRACE; WL WATER LEVEL; WOH WEIGHT OF HAMMER; Y YELLOW

SOIL DESCRIPTION - RANGE OF PROPORTION: "TRACE" 0-1%; "LITTLE" 1-10%; "SOME" 10-20%; "AND" 20-50%

RELATIVE DENSITY	BLOWS	CONSISTENCY	FIELD PENETROMETER
VERY LOOSE	VLS 0-4	VERY SOFT	VS EXTRUDES
LOOSE	LS 4-10	SOFT	S SINKS EASILY
COMPACT	CP 10-30	FIRM	FM MOLDS
DENSE	DN 30-50	STIFF	ST TRIMS WELL WITH KNIFE
VERY DENSE	VDN >50	VERY STIFF	VST TRIMMING BROKEN
		HARD	H HEAVY TO TRIM/PUNCH

ELEV. / DEPTH	DESCRIPTION	BLOWS / FT		SAMPLES NO.	TYPE	BLOWS / 6 IN (TORQUE)	REC. / ATT	DEPTH	SAMPLE DESCRIPTION AND BORING NOTES
									CONTINUED FROM PAGE 1
									(9A) 17.0'-18.0' Very soft gray SILTY CLAY little f sand, rust silt layers throughout laminated sticky OVA head space 3.2 ppm
									(10A) 18.0'-19.0' Very soft gray brown SILTY CLAY and f sand, brown f sand layers throughout, OVA head space 15 ppm
									(10B) 19.0'-20.0' Very soft gray SILTY CLAY gray silt layers throughout, laminated sticky, plastic, moist OVA head space 6.4 ppm
									(11A) 20.0'-21.0' Very soft brown clay trace f sand, interbedded with med brown silt layers, sticky, plastic, wet OVA head space 17 ppm
									(11B) 21.0'-22.0' Very soft gray CLAY trace f sand gray silt layers throughout laminated, plastic, sticky, moist OVA head space 0.0 ppm
									21.8' Bottom of hole. Boring terminated. Water level at 17.2' at boring termination

Golder Associates

Field Boring Log

DEPTH HOLE 21 ft	JOB NO. 855-3027.1	PROJECT CWM / L-19 / VICKERY OHIO			BORING NO. B-3
DEPTH SOIL DRILL	BA INSP. LEL	DRILLING METHOD HOLLOW STEM AUGERS			SHEET 1 OF 2
DEPTH ROCK CORE	WEATHER CLOUDY	DRILLING COMPANY BOWSER-MORNER			SURFACE ELEV.
NO. DIST. BA. / UD. BA.	TEMP. 74° F	DRILL RIG MOBILE B-61	DRILLER JAY WALSH		DATUM
DEPTH WL. 6.5'	HRS. PROD.	WT. SAMPLER HAMMER 140 LBS	DROP 30 IN.		STARTED 1700 16-9-90
TIME WL. 1436 / 6-11-90	HRS. DELAYED	WT. CASING HAMMER	DROP		COMPLETED 1085 16-9-90

SAMPLE TYPES

AS	AUGER SAMPLE	BL	BLACK
CS	CHUNK SAMPLE	BR	BROWN
DO	DRIVE OPEN	C	ORANGE
DS	DENISON SAMPLE	CA	CASING
PS	PITCHER SAMPLE	CL	CLAY
RC	ROCK CORE	CLY	CLAYEY
ST	SLOTTED TUBE	F	FINE
TO	THIN WALLED, OPEN	FRAG	FRAGMENTS
TP	THIN WALLED, PISTON	GL	GRAVEL
WS	WASH SAMPLE	LYD	LAYERED
		L	LITTLE

ABBREVIATIONS

M	MEDIUM	SA	SAMPLE
MIC	MICACEOUS	SAT	SATURATED
MOT	MOTTLED	SD	SAND
MP	NON-PLASTIC	SI	SILT
OR	ORANGE	SLY	SILTY
ORG	ORGANIC	SM	SOME
PK	PRESSURE HYDRAULIC	TR	TRACE
PM	PRESSURE MANUAL	WL	WATER LEVEL
R	RED	WOH	WEIGHT OF HAMMER
RES	RESIDUAL	Y	YELLOW
RK	ROCK		

SOIL DESCRIPTION - RANGE OF PROPORTION

"TRACE" 0 - 10% "SOME" 11 - 20%
"LITTLE" 10 - 20% "AND" 20 - 50%

RELATIVE DENSITY		BLOWS	CONSISTENCY		PENETROMETER
VERY LOOSE	VLO	0-4	VERY SOFT	VS	EXTRUDES
LOOSE	LO	4-10	SOFT	S	WELL THUMB SAFELY
COMPACT	CP	10-30	FIRM	FIR	INDENTS
DENSE	DN	30-50	STIFF	ST	THUMB INDENTS
VERY DENSE	VDN	50	VERY STIFF	VST	THUMNAIL INDENTS
			HARD	H	BELOW THUMBNAIL

ELEV. / DEPTH	DESCRIPTION	BLOWS / FT		SAMPLES NO.	TYPE	BLOWS PER 6" (PROBE)	REC. / ATT	DEPTH	SAMPLE DESCRIPTION AND BORING NOTES
	Soft to very stiff gray to brown CLAYEY SILT to SILTY CLAY, little to some f sand, trace m-c sand, trace organic matter. (FILL).	13		1	DO	4.5.8.14	12/24		SE OF L-19
2		18		2	DO	5.7.11.14	20/24		(1A) 0.0'-1.0' Stiff brown mottled CLAYEY SILT and to some f sand little to trace m sand, dry, brittle OVA head space 0.01 ppm
4		11		3	DO	4.5.6.9	20/24		(1B) 1.0'-2.0' Stiff to very stiff med brown CLAYEY SILT, some f sand little to trace m sand, fibrous roots, dry, brittle, OVA head space 0.03 ppm
6		9		4	DO	4.4.5.7	21/24		(2A) 2.0'-3.0' Stiff to very stiff brown mottled CLAYEY SILT, some f sand, fibrous roots throughout, dry, brittle OVA head space 0.00 ppm
8	Firm to stiff brown SILTY CLAY to CLAYEY SILT, little f sand, red brown silt lamination (LACUSTRINE).	14		5	DO	3.6.8.12	22/24		(2B) 3.0'-4.0' SAME AS ABOVE OVA head space 23 ppm
10		14		6	DO	3.6.8.10	18/24		(3A) 4.0'-5.0' Firm to stiff med. brown SILTY CLAY, some f sand, trace c sand (angular), moist, OVA head space 42 ppm
12		14		7	DO	3.6.8.10	24/24		(3B) 5.0'-6.0' Soft to firm gray-brown, SILTY CLAY, little to some f sand trace angular med sand, moist. OVA head space [illegible] ppm
14		12		8	DO	3.5.7.11	24/24		(4A) 6.0'-7.0' Soft to stiff gray brown SILTY CLAY, little f sand, moist OVA head space 470 ppm
16		11		9	DO	3.5.6.8	24/24		(4B) 7.0'-8.0' Soft gray SILTY CLAY, little f sand tan silt lenses throughout traces of wood odor moist. OVA head space 13 seconds over 1000 ppm.
18		9		10	DO	3.4.5.6	24/24		(5A) 8.0'-9.0' Firm med. brown CLAYEY SILT some f sand interbedded with rust silt lenses, dry to moist OVA head space 200 ppm
20	Very soft gray SILTY CLAY & CLAY little to trace f sand, rust silt lenses (TILL)	4		11	DO	1.2.2.4	24/24		(5B) 9.0'-10.0' Firm, mid brown, mottled SILTY CLAY and to some f sand mid brown f sand lenses throughout dry to moist. OVA head space [illegible] ppm
22	21 ft BORING TERMINATED								(6A) 10.0'-11.0' Soft dark brown CLAYEY SILT, little f sand, interbedded with rust silt layers, moist. OVA head space 92 ppm
									(6B) 11.0-12.0' Stiff dark brown CLAYEY SILT little f sand, interbedded with rust silt layers, moist OVA head space 60 ppm
									(7A) 12.0'-13.0' Firm dark brown CLAYEY SILT little f sand, interbedded with rust silt layers, moist OVA head space 87 ppm
									(7B) 13.0'-16.0' Stiff med brown SILTY CLAY and f sand, interbedded with rust f sand layers and gray silt layers OVA head space 910 ppm

CONTINUED ON NEXT PAGE

Golder Associates

Field Boring Log

DEPTH HOLE 21.8'	JOB NO. 863-3027 /	PROJECT CHIM / L-19 / VICKERY OHIO				BORING NO. B-2	
DEPTH SOIL DRILL 21.8'	QA INSP. LEL	DRILLING METHOD HOLLOW STEM AUGERS				SHEET 2 OF 2	
DEPTH ROCK CORE ___	WEATHER CLOUDY	DRILLING COMPANY BONSER - MOENER				SURFACE ELEV. ___	
NO. DIST. SA. ___ UD. SA. ___	TEMP. 74°F	DRILL RIG MOBILE B-61	DRILLER JIM WALSH			DATUM ___	
DEPTH WL. 6.5'	HRS. PROD. ___	WT. SAMPLER HAMMER 140 LBS	DROP 30 IN			STARTED 1700 (TIME) 16-9-90 (DATE)	
TIME WL. 1432 / 6-11-90	HRS. DELAYED ___	WT. CASING HAMMER ___	DROP ___			COMPLETED 1835 16-9-90	

SAMPLE TYPES

A.S.	AUGER SAMPLE	BL	BLACK
C.S.	CHUNK SAMPLE	BR	BROWN
D.O.	DRIVE OPEN	C	COARSE
D.S.	DENISON SAMPLE	GA	GASSY
P.S.	PITCHER SAMPLE	GL	GLAY
R.C.	ROCK CORE	GLY	GLAYEY
S.T.	SLOTTED TUBE	P	PINK
T.O.	THIN-WALLED, OPEN	FRAG	FRAGMENTS
T.P.	THIN-WALLED, PISTON	GL	GRAVEL
W.S.	WASH SAMPLE	LYD	LAYERED
		LI	LITTLE

ABBREVIATIONS

M	MEDIUM	SA	SAMPLE
MIC	MICACEOUS	SAT	SATURATED
MOT	MOTTLED	SD	SAND
NP	NON-PLASTIC	SI	SILT
OR	ORANGE	SLT	SILTY
ORG	ORGANIC	SM	SOME
PH	PRESSURE HYDRAULIC	TR	TRACE
PM	PRESSURE-MANUAL	WL	WATER LEVEL
R	RED	WH	WEIGHT OF HAMMER
RES	RESIDUAL	Y	YELLOW
RK	ROCK		

SOIL DESCRIPTION - RANGE OF PROPORTION

"TRACE"	0 - 1%	"SOME"	11 - 20%
"LITTLE"	1 - 10%	"AND"	20 - 35%

RELATIVE DENSITY	BLOWS	CONSISTENCY	PENETROMETER
VERY LOOSE VLO	0 - 4	VERY SOFT VS	EXTRUDES
LOOSE LO	4 - 10	SOFT S	MOLDS EASILY
COMPACT CP	10 - 30	FIRM FM	MOLDS
DENSE DE	30 - 50	STIFF ST	THUMB MOLDS
VERY DENSE VDE	50	VERY STIFF VST	THUMBNAIL MOLDS
		HARD H	REQUIRES THUMBNAIL

ELEV. DEPTH	DESCRIPTION	BLOWS / FT		SAMPLES NO.	TYPE	BLOWS / 6" DEPTH (FORCE)	REC. / ATT	DEPTH	SAMPLE DESCRIPTION AND BORING NOTES
									CONTINUED FROM PAGE 1
									(8A) 14.0'-15.0' Firm med. brown SILTY CLAY and f sand, interbedded with rust f sand layers and gray silt layers. OVA head space 20 ppm.
									(8B) 15.0'-16.0' SAME AS ABOVE OVA head space 5.0 ppm
									(9A) 16.0'-17.0' SAME AS ABOVE OVA head space 9.0 ppm
									(9B) 17.0'-18.0' Soft brown SILTY CLAY some f sand, interbedded with red brown silt layers, moist. OVA head space 3.2 ppm.
									(10A) 18.0'-19.0' Very soft brown SILTY CLAY to CLAY, little f sand, sticky, plastic, moist to wet. OVA head space 2.5 ppm
									(10B) 19.0'-20.0' Very soft gray SILTY CLAY little to trace f sand, laminated, sticky, plastic, moist to wet. OVA head space 1.2 ppm
									(11A) 20.0'-21.0' Very soft, gray SILTY CLAY, trace f sand layers of rust silt throughout, very sticky, plastic, laminated, wet. OVA head space 2.5 ppm
									(11B) 21.0'-22.0' Very soft gray CLAY, trace f sand, plastic, sticky, laminated, wet. OVA head space 0.0 ppm
									21.8' Bottom of hole. Boring terminated. Water level at 20.0' at boring termination

Golder Associates

Field Boring Log

DEPTH HOLE 21.8'	JOB NO. 853-3027	PROJECT CWM / L-19 / VICKERY OHIO				BORING NO. B-2	
DEPTH SOIL DRILL 21.8'	GA INSP. LEL	DRILLING METHOD HOLLOW STEM AUGERS				SHEET 1 OF 2	
DEPTH ROCK CORE	WEATHER SUNNY	DRILLING COMPANY BOWSER-MORNER				SURFACE ELEV.	
NO. DIST. BA. / UD. SA.	TEMP. 64°	DRILL RIG MOBILE B-61		DRILLER JIM WALSH		DATUM	
DEPTH WL. 3.2'	HRS. PROD.	WT. SAMPLER HAMMER 140 LBS		DROP 30 IN.		STARTED 0950 (Time) 6-10-90 (Date)	
TIME WL. 1402 / 6-12-90	HRS. DELAYED	WT. CASING HAMMER		DROP		COMPLETED 1110 (Time) 6-10-90 (Date)	

SAMPLE TYPES: AS AUGER SAMPLE; CS CHUNK SAMPLE; OD DRIVE OPEN; DS DENISON SAMPLE; PS PITCHER SAMPLE; RC ROCK CORE; ST SLOTTED TUBE; TO THIN-WALLED, OPEN; TP THIN-WALLED, PISTON; WS WASH SAMPLE

ABBREVIATIONS: BL BLACK; BR BROWN; C COARSE; CA CASING; CL CLAY; CLY CLAYEY; F FINE; FRAG FRAGMENTS; GL GRAVEL; LYD LAYERED; L LITTLE; M MEDIUM; MIC MICACEOUS; MOT MOTTLED; NP NON-PLASTIC; OR ORANGE; ORG ORGANIC; PH PRESSURE-HYDRAULIC; PM PRESSURE-MANUAL; R RED; RES RESIDUAL; RK ROCK; SA SAMPLE; SAT SATURATED; SD SAND; SI SILT; SLT SILTY; SOR SORTED; TR TRACE; WL WATER LEVEL; WOH WEIGHT OF HAMMER; Y YELLOW

BOIL DESCRIPTION - RANGE OF PROPORTION: "TRACE" 0-1%; "LITTLE" 5-10%; "SOME" 10-20%; "AND" 30-50%

RELATIVE DENSITY	BLOWS	CONSISTENCY	BLOWS	PRESSURE
VERY LOOSE VLO	0-4	VERY SOFT VS	0-3	0-1 TRACE
LOOSE LO	4-10	SOFT S	3-5	1-2 NEGLIGIBLE
COMPACT CP	10-30	FIRM FM	5-9	2-4 MODERATE
DENSE DN	30-50	STIFF ST	9-17	4-8 TRACE MOISTURE
VERY DENSE VDN	50	VERY STIFF VST	17-30	8-16 THICKNESS
		HARD H	30-50	16-32 THICKNESS

ELEV. / DEPTH	DESCRIPTION	BLOWS / FT		SAMPLES NO.	TYPE	BLOWS (6 in.)	REC. / ATT	DEPTH	SAMPLE DESCRIPTION AND BORING NOTES
									SW of L-19
2	Very loose to loose brown F-C SAND, little C gravel, little clayey silt. (FILL).	9		1	DO	2.3.6.6	9/24		(1) 0.0-2.0' Loose gray F-C SAND, little C gravel, little clayey silt, moist. OVA head space 4.8 ppm
4		2		2	DO	2.1.1.1	18/24		
		> 61		3	DO	1.1.50/1"	2/24		Note: Little recovery, therefore only one sample taken
6		8		4	DO	3.3.5.6	18/24		(2A) 2.0-3.0' Very loose brown F SAND, some to little clayey silt, trace m sand sticky wet. OVA head space 0.0 ppm
8	Soft to stiff mod. brown to dark gray SILTY CLAY, some to little f sand, trace f-c gravel, trace m-c sand, trace organic matter, brown silt lamination. (LACUSTRINE).	14		5	DO	2.5.9.13	15/24		(2B) 3.0-4.0' Very loose brown F SAND, trace silt, trace m sand, wet to moist, OVA head space 10 ppm
10		21		6	DO	4.9.12.17	18/24		(3A) 4.0-6.0' Very loose to very dense brown F-M SAND and f-c gravel, very wet, saturated. Hit something hard at 5.0' OVA head space 60 ppm
12		11		7	DO	5.5.6.11	11/24		
14		10		8	DO	3.5.5.8	24/24		Note: Hit something hard at 5.0' therefore pulled forward (wet) 4'. Tried to drill throughout before moving. Drilled 5', again hit something hard, could be a foundation. Decided to move 5' SW of 2ND HOLE
16		8		9	DO	4.4.4.6	24/24		
18	Very soft to firm gray CLAY with gray silt lamination. (TILL).	5		10	DO	2.2.3.4	24/24		
20		6		11	DO	3.3.3.3	24/24		(3B) AUGER SAMPLE FROM SECOND ATTEMPT AT 5.0' Dark gray F SAND, some clayey silt, sticky wet, strong odor OVA head space 45 ppm.
22	21.8' BORING TERMINATED								(4A) THIRD HOLE 6.0-7.0' Soft to firm med brown CLAYEY SILT and f sand, little f gravel, trace m sand; moist OVA head space 3.8 ppm.
									(4B) 7.0-8.0' Firm to stiff dark gray SILTY CLAY, some f sand, fibrous roots and bark, moist, slight odor OVA head space 15 seconds over 1000 ppm
									(5A) 8.0-9.0' Loose brown and gray F-C SAND, little f-c gravel, turning to brown F SAND and SILT, saturated OVA head space 3.4 ppm
									(5B) 9.0-10.0' Soft to firm dark gray SILTY CLAY, some f sand, trace fibrous roots, dry to moist. OVA head space 1000 ppm
									(6A) 10.0-11.0' Very soft dark gray SILTY CLAY, little f sand, sticky, moist OVA head space 350 ppm
									(6B) 11.0-12.0' Firm gray mottled SILTY CLAY some f sand, interbedded with rust silt layers throughout. OVA head space 140 ppm

CONTINUED ON NEXT PAGE

Field Boring Log

DEPTH HOLE 21.8'	JOB NO. 853-3027.1	PROJECT CNM / 6-19 / VICKERY DRC				BORING NO. A-3	
DEPTH SOIL DRILL 21.8'	GA INSP. LEL	DRILLING METHOD HOLLOW STEM AUGERS				SHEET 2 OF 2	
DEPTH ROCK CORE	WEATHER SUNNY	DRILLING COMPANY BOWSER-MORNER				SURFACE ELEV.	
NO. DIST. SA. / UD. SA.	TEMP. 64°	DRILL RIG MOBILE B-61		DRILLER JIM WALSH		DATUM	
DEPTH WL. 3.4'	HRS PROD.	WT. SAMPLER HAMMER 140 LBS		DROP 30 IN		STARTED 0950 (Time) 16-10-90 (Date)	
TIME WL. 1554 / 6-12-90	HRS. DELAYED	WT. CASING HAMMER		DROP		COMPLETED 1110 (Time) 16-10-90 (Date)	

SAMPLE TYPES

AS	AUGER SAMPLE	BL	BLACK
CS	CHUNK SAMPLE	BR	BROWN
DO	DRIVE OPEN	C	COARSE
DS	DENISON SAMPLE	GA	GARNS
PS	PITCHER SAMPLE	GL	GLAY
RC	ROCK CORE	GLY	GLAYEY
ST	SLOTTED TUBE	F	FINE
TO	THIN-WALLED, OPEN	FRAG	FRAGMENTS
TP	THIN-WALLED PISTON	GL	GRAVEL
WS	WASH SAMPLE	LYD	LAYERED
		U	LITTLE

ABBREVIATIONS

M	MEDIUM	SA	SAMPLE
MIC	MICACEOUS	SAT	SATURATED
MOT	MOTTLED	SD	SAND
NP	NON-PLASTIC	SI	SILT
OG	ORANGE	SLT	SILTY
ORG	ORGANIC	SM	SOME
PH	PRESSURE-HYDRAULIC	TR	TRACE
PM	PRESSURE-MANUAL	WL	WATER LEVEL
R	RED	WOH	WEIGHT OF HAMMER
RES	RESIDUAL	Y	YELLOW
RK	ROCK		

SOIL DESCRIPTION - RANGE OF PROPORTION

"TRACE" 0 - 1% "SOME" 12 - 30%
"LITTLE" 1 - 12% "AND" 30 - 50%

RELATIVE DENSITY	BLOWS	CONSISTENCY	BLOWS	PENETRATION RESISTANCE	
VERY LOOSE	0-5	0-4	VERY SOFT	VS	LESS THAN 0.5
LOOSE	5-8	4-10	SOFT	S	0.5 - 1.0 TSF
COMPACT	10-30	10-30	FIRM	FM	1.0 - 2.0 TSF
DENSE	30-50	30-50	STIFF	ST	2.0 - 4.0 TSF
VERY DENSE	VDM 50	50	VERY STIFF	VST	4.0 - 8.0 TSF
			HARD	H	OVER 8.0 TSF

ELEV. DEPTH	DESCRIPTION	BLOWS / FT		SAMPLES NO.	TYPE	BLOWS PER 6 IN (FORCE)	REC / ATT	DEPTH	SAMPLE DESCRIPTION AND BORING NOTES
									CONTINUED FROM PAGE 1
									(7A) 12.0-13.0' Firm to stiff dark gray SILTY CLAY, little f sand, moist OVA head space 8 seconds over 1000 ppm
									(7B) 13.0-14.0' Firm to stiff brown and med gray mottled SILTY CLAY, little f sand, gray vertical weathering OVA head space 100 ppm
									(8A) 14.0-15.0' Very soft to soft dark gray SILTY CLAY, little f sand, red brown silt lenses throughout, OVA head space 140 ppm
									(8B) 15.0-16.0' Firm gray and rust mottled SILTY CLAY, little f sand, silt lenses throughout, OVA head space 25 ppm
									(9A) 16.0-17.0' Soft red brown CLAY trace f sand, laminated, sticky, moist OVA head space 61 ppm
									(9B) 17.0-18.0' Stiff to firm gray and brown mottled SILTY CLAY, trace f sand, silt lenses throughout, wet to moist OVA head space 64 ppm
									(10A) 18.0-19.0' Very soft to soft med gray CLAY, brown silt layers throughout, laminated, sticky OVA head space 100 ppm
									(10B) 19.0-20.0' SAME AS ABOVE OVA head space 17 ppm
									(11A) 20.0-21.0' Very soft to soft gray and brown mottled SILTY CLAY, gray and brown silt lenses throughout, laminated, sticky, moist OVA head space 72 ppm
									(11B) 21.0-22.0' Soft to firm gray CLAY interbedded with gray silt layers laminated, sticky, plastic moist OVA head space 21 ppm
									21.8' Bottom of hole. Boring terminated. Water level at 20.7' at boring termination

Golder Associates

Field Boring Log

DEPTH HOLE 21.9'	JOB NO. 853-3027.1	PROJECT CWM / L-19 / VICKERY OHIO	BORING NO. B-4
DEPTH SOIL DRILL 21.9'	GA INSP. LEL	DRILLING METHOD HOLLOW STEM AUGERS	SHEET 1 OF 2
DEPTH ROCK CORE ___	WEATHER SUNNY	DRILLING COMPANY BOWSER-MORNER	SURFACE ELEV. ___
NO. DIST. BA. ___ UD. BA. ___	TEMP. 74° F	DRILL RIG MOBILE B-61	DRILLER JM WALSH	DATUM ___
DEPTH WL. 7.5'	HRS. PROD. ___	WT. SAMPLER HAMMER 140 LBS.	DROP 30 IN	STARTED 1315 (time) 16-10-90 (date)
TIME WL. 1425 / 6-12-90	HRS. DELAYED ___	WT. CASING HAMMER ___	DROP ___	COMPLETED 1500 16-10-90

SAMPLE TYPES

A.S.	AUGER SAMPLE
C.S.	CHUNK SAMPLE
D.O.	DRIVE OPEN
D.S.	DENISON SAMPLE
P.S.	PITCHER SAMPLE
R.C.	ROCK CORE
S.T.	SLOTTED TUBE
T.O.	THIN-WALLED OPEN
T.P.	THIN-WALLED, PISTON
W.S.	WASH SAMPLE

ABBREVIATIONS

BL	BLACK	M	MEDIUM	SA	SAMPLE
BR	BROWN	MIC	MICACEOUS	SAT	SATURATED
C	COARSE	MOT	MOTTLED	SD	SAND
CA	CASING	MP	NON-PLASTIC	SI	SILT
CL	CLAY	OR	ORANGE	SIT	SILTY
CLY	CLAYEY	ORG	ORGANIC	SM	SOME
F	FINE	PH	PRESSURE HYDRAULIC	TR	TRACE
FRAG	FRAGMENTS	PM	PRESSURE MANUAL	WL	WATER LEVEL
GL	GRAVEL	R	RED	WH	WEIGHT OF HAMMER
LYD	LAYERED	RES	RESIDUAL	Y	YELLOW
L	LITTLE	RK	ROCK		

SOIL DESCRIPTION - RANGE OF PROPORTION

"TRACE" 0-1% "SOME" 17-30%
"LITTLE" 5-17% "AND" 30-50%

RELATIVE DENSITY		BLOWS	CONSISTENCY		PENETROMETER PRESSURE
VERY LOOSE	VLO	0-4	VERY SOFT	VS	EXTRUDES
LOOSE	LO	4-10	SOFT	S	MOLDS EASILY
COMPACT	CP	10-30	FIRM	FM	MOLDS
DENSE	DN	30-50	STIFF	ST	CRACKS WHEN BENT
VERY DENSE	VDN	50	VERY STIFF	VST	THUMBNAIL DENTS
			HARD	H	HEAVY TO THUMBNAIL

ELEV. DEPTH	DESCRIPTION	BLOWS/FT	SAMPLES NO.	TYPE	BLOWS 6 IN	REC/ATT	DEPTH	SAMPLE DESCRIPTION AND BORING NOTES
	Loose to very stiff brown SILTY CLAY, little to some f-m sand. (FILL).	14	1	DO	9.5.9.15	17/24		NW OF L-19
2		18	2	DO	7.8.10.17	19/24		(1A) 0.0'-1.0' Loose to compact gray F-C SAND and f-c gravel, some brown SILTY CLAY, dry. OVA head space 3.6 ppm.
4		22	3	DO	6.9.13.16	19/24		(1B) 1.0'-2.0' Very stiff med. brown SILTY CLAY, little to trace f sand, gray vertical weathering, rust and gray silt lenses throughout, dry. OVA head space 41 ppm
6		12	4	DO	4.6.6.10	18/24		(2A) 2.0'-3.0' Soft med brown SILTY CLAY some f-m sand, dry. OVA head space 25 ppm
8	Soft to stiff gray SILTY CLAY, little to some f sand, trace organic matter, brown silt lamination. (LACUSTRINE).	12	5	DO	5.4.8.10	18/24		(2B) 3.0-4.0' Very stiff med brown SILTY CLAY, little f sand, gray vertical weathering, dry. OVA head space 440 ppm
10		14	6	DO	4.6.8.10	20/24		(3A) 4.0-5.0' Stiff to very stiff med brown SILTY CLAY, little f sand, f sand and silt layer from 4.8-5.0'. OVA head space 270 ppm
12		15	7	DO	4.6.9.12	20/24		(3B) 5.0-6.0' Very stiff brown and red brown SILTY CLAY little f sand, grading to dark gray SILTY CLAY, strong odor. OVA head space 910 ppm
14		11	8	DO	3.5.6.8	24/24		(4A) 6.0-7.0' Stiff gray mottled SILTY CLAY, some f sand, rust weathering. OVA head space 450 ppm
16		10	9	DO	3.4.6.7	24/24		(4B) 7.0-8.0' Firm dark gray SILTY CLAY, some f sand, moist, strong odor. OVA head space 44 seconds over 1000 ppm
18		7	10	DO	3.3.4.5	24/24		(5A) 8.0-9.0' Firm dark brown SILTY CLAY and to some f sand, mottled with red brown silt throughout, dry. OVA head space 19 seconds over 1000 ppm
20	Very soft gray CLAY, gray silt lamination. (FILL).	4	11	DO	1.2.2.3	24/24		(5B) 9.0'-10.0' Soft dark gray SILTY CLAY little f sand, strong odor. OVA head space 22 seconds over 1000 ppm
22	21.9' BORING TERMINATED							(6A) 10.0'-11.0' Firm gray mottled SILTY CLAY, little f sand, rust weathering. OVA head space 790 ppm
								(6B) 11.0-12.0' Firm gray and rust mottled SILTY CLAY and f sand, fibrous roots throughout. OVA head space 220 ppm
								(7A) 12.0-13.0' SAME AS ABOVE. OVA head space 240 ppm
								(7B) 13.0'-14.0' STIFF SAME AS ABOVE. OVA head space 64 ppm
								(8A) 14.0-15.0' SAME AS ABOVE. OVA head space 3 ppm
								(8B) 15.0'-16.0' SAME AS ABOVE. OVA head space 20.0 ppm
								(9A) 16.0'-17.0' SAME AS ABOVE. OVA head space 7 ppm
								(9B) 17.0-18.0' SAME AS ABOVE with gray and red brown silt lenses throughout. OVA head space 14 ppm

CONTINUED ON NEXT PAGE.

GOIDEL ASSOCIATES

Field Boring Log

DEPTH HOLE 21.9'	JOB NO. R53-3027	PROJECT CWM/LEMI/ VICKERY OHIO	BORING NO. B-4
DEPTH SOIL DRILL 21.9'	BA INSP. LEL	DRILLING METHOD HOLLOW STEM AUGERS	SHEET 2 OF 2
DEPTH ROCK CORE	WEATHER SUNNY	DRILLING COMPANY BOWSER-MORNER	SURFACE ELEV.
NO. DIST. SA. UD. SA.	TEMP. 74° F	DRILL RIG MOBILE B-61 DRILLER JIM WALSH	DATUM
DEPTH WL. 7.8'	HRS. PROD.	WT. SAMPLER HAMMER 140 LBS DROP 30 IN	STARTED 1315 (TIME) 6-10-90 (DATE)
TIME WL. 1405/6-12-90	HRS. DELAYED	WT. CASING HAMMER DROP	COMPLETED 1500 6-10-90

SAMPLE TYPES

A.S.	AUGER SAMPLE
C.S.	CHUNK SAMPLE
O.D.	OPEN DRIVE
D.S.	DRIVEN SAMPLE
P.S.	PITCHER SAMPLE
R.C.	ROCK CORE
S.T.	SLOTTED TUBE
T.O.	THIN-WALLED, OPEN
T.P.	THIN-WALLED, PISTON
W.S.	WASH SAMPLE

ABBREVIATIONS

BL	BLACK	M	MEDIUM	SA	SAMPLE
BR	BROWN	MIC	MICACEOUS	SAT	SATURATED
C	COARSE	MOT	MOTTLED	SD	SAND
CA	CASING	NP	NON-PLASTIC	SI	SILT
CL	CLAY	OR	ORANGE	SLT	SILTY
CLY	CLAYEY	ORG	ORGANIC	SOIL	SOIL
F	FINE	PH	PRESSURE HYDRAULIC	TR	TRACE
FRAG	FRAGMENTS	PM	PRESSURE MANUAL	WL	WATER LEVEL
GL	GRAVEL	R	RED	WOH	WEIGHT OF HAMMER
LYD	LAYERED	RES	RESIDUAL	Y	YELLOW
LI	LITTLE	RK	ROCK		

SOIL DESCRIPTION - RANGE OF PROPORTION

"TRACE" 0 - 1% "SOME" 12 - 30%
"LITTLE" 1 - 12% "AND" 30 - 50%

RELATIVE DENSITY	BLOWS	CONSISTENCY		PENETROMETER
VERY LOOSE	VLS 0-4	VERY SOFT	VS	EXTRUDES
LOOSE	LS 4-10	SOFT	S	MOLDS EASILY
COMPACT	CP 10-30	FIRM	FM	MOLDS
DENSE	DN 30-50	STIFF	ST	TAKES MODERATE
VERY DENSE	VDN 50	VERY STIFF	VST	THUMBNAIL MODERATE
		HARD	H	BELIEVE THUMBNAIL

ELEV. DEPTH	DESCRIPTION	BLOWS/FT		SAMPLES NO.	TYPE	HAMMER BLOWS PER 6 IN (FORCE)	REC/ATT	DEPTH	SAMPLE DESCRIPTION AND BORING NOTES
									CONTINUED FROM PAGE 1
									(10A) 18.0-19.0' Soft to firm brown SILTY CLAY, some f sand brown silt layers throughout, moist, OVA head space 16 ppm
									(10B) 19.5-20.0 SAME AS ABOVE OVA head space 20 ppm
									(11A) 20.0-21.0' Very soft gray CLAY, gray silt lenses throughout, laminated, plastic, sticky, wet OVA head space 12 ppm
									(11B) 21.0-22.0' SAME AS ABOVE. OVA head space 6.6 ppm
									21.9' Bottom of hole. Boring terminated. Water level at 21.8' at boring termination.

ATTACHMENT C

BOREHOLE WATER SAMPLING FORMS

ETC

FIELD PARAMETER FORM (CC2)

Form 0002
Sample Management
12/89

ETC JOB # FX1452

Sample Point [X] [B-11] (Source Code / Sample Point ID)

FIELD PROCEDURES

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL IN CASING (Gallons)	VOLUME PURGED (Gallons)
90 06 10	1600	17.5	37.014	37.014

SAMPLING METHOD:

Sampler Type [E] A-Submersible Pump, B-ISCO, C-Bladder Pump, D-Dipper/Bottle, E-Bailer, F-Scoop/Shovel, X-Other ____ (SPECIFY OTHER)

Sampler Material [5] A-Teflon, B-Metal, C-PVC, D-Plastic, X-Other ____ (SPECIFY OTHER)

Tubing Material [ ] A-Teflon, B-Tygon, C-Polyethylene, D-Silicon, X-Other ____ (SPECIFY OTHER)

Sample Composited [Y/N] ____ Procedure/Proportions

FIELD MEASUREMENTS

Well Elevation (ft/msl) [ ]
Depth to Ground water (ft) [6.00]
Groundwater Elevation (ft msl) [ ]
Well Depth (ft) [21.80]
Sample Depth (non-well) (ft) [ ]

	ph	(STD)		spec. cond.	um/cm at 25°C		other parameter	value	units
1st	6.4		1st	9200			temp (H_2O)	9.2	°C
2nd			2nd						
3rd			3rd						
4th			4th						

Sample Temp [ ] (°C)
Turbidity [ ] NTU

FIELD COMMENTS

Sample Appearance:
Weather Conditions: SUNNY WINDY 78°F
Other:

FILTERING: Use Chain of Custody (CC1) to indicate which bottles were filtered

Sampler: LORI E LOZIER (Print) Employer: GOLDER ASSOCIATES

I certify that sampling procedures were in accordance with applicable EPA state and corporate protocols.

6-13-90 (Date) [signature] (Signature)

ORIGINAL

ETC

FIELD PARAMETER FORM (CC2)

Form 0002
Sample Management
12/89

ETC JOB # FA-1483

Sample Point [X] [B-2]
Source Code — Sample Point I.D

FIELD PROCEDURES

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL. IN CASING (Gallons)	VOLUME PURGED (Gallons)
901061/0	1655	2.6	319.66	319.66

SAMPLING METHOD:

Sampler Type [E] A-Submersible Pump, B-ISCO, C-Bladder Pump, D-Dipper/Bottle, E-Bailer, F-Scoop/Shovel, X-Other _____ (SPECIFY OTHER)

Sampler Material [B] A-Teflon, B-Metal, C-PVC, D-Plastic, X-Other _____ (SPECIFY OTHER)

Tubing Material [ ] A-Teflon, B-Tygon, C-Polyethylene, D-Silicon, X-Other _____ (SPECIFY OTHER)

Sample Composited [Y/N] _____ Procedure/Proportions

FIELD MEASUREMENTS

Well Elevation (ft/msl) [ ]
Depth to Ground water (ft) [6.50]
Groundwater Elevation (ft msl) [ ]
Well Depth (ft) [21.80]
Sample Depth (non-well) (ft) [ ]

	ph		spec. cond.		other parameter	value	units
1st	6.45	(STD)	1st	5800 um/cm at 25°C	H2O temp	6.7	°C
2nd		(STD)	2nd	um/cm at 25°C			
3rd		(STD)	3rd	um/cm at 25°C			
4th		(STD)	4th	um/cm at 25°C			

Sample Temp [ ] (°C)
Turbidity [ ] NTU

FIELD COMMENTS

Sample Appearance:
Weather Conditions: SUNNY WINDY 70°F
Other:

FILTERING: Use Chain of Custody (CC1) to indicate which bottles were filtered

Sampler: LOCI E LOWER (Print) Employer: GOLDER ASSOCIATES

I certify that sampling procedures were in accordance with applicable EPA state and corporate protocols.

6-13-90 (Date) [signature] (Signature)

ORIGINAL

ETC

FIELD PARAMETER FORM (CC2)

Form 0002
Sample Management
12/89

ETC JOB # FAG4SH

Sample Point [X] [B1-3]
Source Code — Sample Point I.D

FIELD PROCEDURES

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL IN CASING (Gallons)	VOLUME PURGED (Gallons)
910611	1800	24	48.9	48.9

SAMPLING METHOD:

Sampler Type [E] A-Submersible Pump, B-ISCO, C-Bladder Pump, D-Dipper/Bottle, E-Bailer, F-Scoop/Shovel, X-Other ____ (SPECIFY OTHER)

Sampler Material [B] A-Teflon, B-Metal, C-PVC, D-Plastic, X-Other ____ (SPECIFY OTHER)

Tubing Material [ ] A-Teflon, B-Tygon, C-Polyethylene, D-Silicon, X-Other ____ (SPECIFY OTHER)

Sample Composited [Y/N] ____ Procedure/Proportions

FIELD MEASUREMENTS

Well Elevation (ft/msl) [ ]
Depth to Ground water (ft) [34]
Groundwater Elevation (ft msl) [ ]
Well Depth (ft) [21.8]
Sample Depth (non-well) (ft) [ ]

	ph	(STD)		spec. cond.	um/cm at 25°C		(other parameter)	value	units
1st	6.93	(STD)	1st	1050	um/cm at 25°C		H_2O temp.	21.0	°C
2nd		(STD)	2nd		um/cm at 25°C				
3rd		(STD)	3rd		um/cm at 25°C				
4th		(STD)	4th		um/cm at 25°C				

Sample Temp [ ] (°C)
Turbidity [ ] NTU

FIELD COMMENTS

Sample Appearance:
Weather Conditions: SUNNY, WINDY, 78°F
Other:

FILTERING: Use Chain of Custody (CC1) to indicate which bottles were filtered

Sampler: LORI E. LOZIER (Print) Employer: GOLDER ASSOCIATES

I certify that sampling procedures were in accordance with applicable EPA state and corporate protocols.

6-13-90 (Date) [signature] (Signature)

ORIGINAL

ETC

FIELD PARAMETER FORM (CC2)

Form 0002
Sample Management
12/89

ETC JOB # FIELDS

Sample Point [X] [B-14]
Source Code — Sample Point I.D

FIELD PROCEDURES

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL IN CASING (Gallons)	VOLUME PURGED (Gallons)
901011	1820	2.51	3.51.196	3.51.196

SAMPLING METHOD:

Sampler Type [E] A-Submersible Pump, B-ISCO, C-Bladder Pump, D-Dipper/Bottle, E-Bailer, F-Scoop/Shovel, X-Other ____ (SPECIFY OTHER)

Sampler Material [B] A-Teflon, B-Metal, C-PVC, D-Plastic, X-Other ____ (SPECIFY OTHER)

Tubing Material [ ] A-Teflon, B-Tygon, C-Polyethylene, D-Silicon, X-Other ____ (SPECIFY OTHER)

Sample Composited [Y/N] ____ Procedure/Proportions

FIELD MEASUREMENTS

Well Elevation (ft/msl) ____

Depth to Ground water (ft) 78.0

Groundwater Elevation (ft msl) ____

Well Depth (ft) 21.9

Sample Depth (non-well) (ft) ____

	pH		spec. cond.		other parameter	value	units
1st	6.55	(STD)	3100	um/cm at 25°C	H2O temp	13.9	°C
2nd		(STD)		um/cm at 25°C			
3rd		(STD)		um/cm at 25°C			
4th		(STD)		um/cm at 25°C			

Sample Temp ____ (°C)

Turbidity ____ NTU

FIELD COMMENTS

Sample Appearance: ____

Weather Conditions: SUNNY, WINDY, 78°F

Other: ____

FILTERING: Use Chain of Custody (CC1) to indicate which bottles were filtered

Sampler: LORI E. LOZIER (Print) Employer: GULDEE ASSOCIATES

I certify that sampling procedures were in accordance with applicable EPA state and corporate protocols.

6-13-90 [signature]
(Date) (Signature)

ORIGINAL

OHM Corporation

ETC Environmental Testing and Certification Corp.

Technical Report

for

GOLDER ASSOCIATES

3737 CHAMBLEE-TUCKER ROAD

ATLANTA, GA 30341

Chain of Custody Data Required for ETC Data Management Summary Reports						
FA9482	GOLDER ASSOCIATES	490	XB-1	900611	1838	
ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours

Richard P. Albert

Vice President, General Manager

This Technical Report is an INSITE℠ service generated by LODESTAR℠ Data Management Software.

284 Raritan Center Parkway ■ CN 7808 ■ Edison, New Jersey 08818-7808 ■ 201-225-5600

COMMENTS

ETC

COMMENTS FOR SPECIFIC ANALYSES

SURROGATE RECOVERY:

FA9482

Surrogate recoveries outside of control limits may be attributed to chromatographic problems at surrogate retention times.

TABULATED ANALYTICAL RESULTS

ETC

JUN 20, 1990

TABLE 1: QUANTITATIVE RESULTS and QUALITY ASSURANCE DATA

Volatile Compounds - GC/MS Analysis Data (QR01)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9482	GOLDER ASSOCIATES	490	XB-1	900611	1838	0

NPDES Number	Compound	Results		QC Replicate		QC Blank and Spiked Blank			QC Matrix Spike		
		Sample Concen. ug/l	MDL ug/l	First ug/l	Second ug/l	Blank Data ug/l	Concen. Added ug/l	% Recov	Unspiked Sample ug/l	Concen Added ug/l	% Recov
15V	1,2-Dichloroethane	1660	2.8	55.4	61.6	ND	50.0	105	ND	50.0	111

Acrolein and Acrylonitrile values are screen only.

All zero and variable recoveries have been manually verified.

ETC

JUN 19, 1990

TABLE 2: METHOD PERFORMANCE DATA
Surrogate Recovery Water - GC/MS Data (QR20)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9482	GOLDER ASSOCIATES	490	XB-1	900611	1838	0

Compound	Amount added ug	% Recovery	IFB EPA Control Limits	
			Lower	Upper
VOLATILE FRACTION (GC/MS)				
Toluene-D8	.250	97	88	110
p-Bromofluorobenzene	.250	102	86	115
1,2-Dichloroethane-D4	.250	190*	76	114
ACID FRACTION (GC/MS)				
Phenol-D5	-	-	10	94
2-Fluorophenol	-	-	21	100
2,4,6-Tribromophenol	-	-	10	123
BASE/NEUTRAL FRACTION (GC/MS)				
Nitrobenzene-D5	-	-	35	114
2-Fluorobiphenyl	-	-	43	116
Terphenyl-D14	-	-	33	141
PESTICIDE/PCB FRACTION (GC)				
Dibutylchlorendate	-	-	24**	154**
2,4,5,6-Tetrachloro-m-xylene	-	-	46	185
METHOD 601				
Bromochloromethane	-	-	82	124
METHOD 602				
a,a,a-Trifluorotoluene	-	-	80	120

* Recovery Manually Verified

** Advisory Limits Only

GC/MS QUALITY CONTROL DATA

Instrument Performance Check

- Tuning and Mass Calibration

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3341 BFB Injection Date: 06/18/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0946

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) Pack

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.2
75	30.0 - 60.0% of mass 95	53.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	78.0
175	5.0 - 9.0% of mass 174	6.4 (8.2)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.4 (95.4)1
177	5.0 - 9.0% of mass 176	3.8 (5.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60308VS	>B3342	06/18/90	1029
02		QC60308V3	>B3344	06/18/90	1258
03		FA9482V3	>B3345	06/18/90	1345
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3309 BFB Injection Date: 06/14/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0841

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) Cap.

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.1
75	30.0 - 60.0% of mass 95	55.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	72.3
175	5.0 - 9.0% of mass 174	5.0 (6.9)1
176	Greater than 95.0%, but less than 101.0% of mass 174	70.9 (98.1)1
177	5.0 - 9.0% of mass 176	5.8 (8.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60308VS	>B3310	06/14/90	0916
02		QC60308VS	>B3311	06/14/90	1003
03		QC60308V	>B3312	06/14/90	1050
04		FA9404V	>B3313	06/14/90	1229
05		FA9404VS	>B3314	06/14/90	1316
06		FA9404VR	>B3315	06/14/90	1402
07		FA9405V	>B3316	06/14/90	1449
08		FA9401V	>B3317	06/14/90	1536
09		FA8780V	>B3318	06/14/90	1622
10		FA7836V	>B3319	06/14/90	1709
11		FA9583V	>B3320	06/14/90	1755
12		FA9584V	>B3321	06/14/90	1843
13		FA9149V	>B3322	06/14/90	1929
14		FA9150V	>B3323	06/14/90	2016
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3324 BFB Injection Date: 06/15/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0808

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.7
75	30.0 - 60.0% of mass 95	49.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	73.8
175	5.0 - 9.0% of mass 174	5.4 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.5 (97.0)1
177	5.0 - 9.0% of mass 176	4.8 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60308VS	>B3325	06/15/90	0834
02		QC60308V2	>B3326	06/15/90	0921
03		QS60579V2	>B3327	06/15/90	1015
04		FA9550V2	>B3328	06/15/90	1102
05		~~FA9601V2~~	~~>B3329~~	06/15/90	1149
06		FA9602V2	>B3330	06/15/90	1236
07		FA8728V2	>B3331	06/15/90	1323
08		FA9139V2	>B3332	06/15/90	1410
09		~~QC60308V~~	~~>B3333~~	~~06/15/90~~	~~1529~~
10		FA9601V2	>B3334	06/15/90	1640
11		FA9487V2	>B3335	06/15/90	1726
12		FA9550V2	>B3336	06/15/90	1814
13		FA9139V2	>B3337	06/15/90	1900
14		FA9484V2	>B3338	06/15/90	1947
15					
16					
17					
18					
19					
20					
21					
22					

ET 6/19/.

CHAIN OF CUSTODY DOCUMENTATION

- Chain of Custody Forms
- Laboratory Chronicles
- Subcontract

ENVIRONMENTAL TESTING and CERTIFICATION

Seal No. 0172177 ETC Job # [illegible]

CHAIN OF CUSTODY FORM (CC1)

ORIGINAL

Date Sealed [illegible] By: [illegible]

Company: CHEMICAL WASTE MANAGEMENT Attn.: STEVE LONNEMAN

Facility/Site: Phone: (419) 547 - 7291

Address: 3956 STATE ROUTE 412, VICKERY, OH 43464

SAMPLE IDENTIFICATION

Facility: 4 7 0 (Facility/Site Code) (Optional Sample Point Descriptions)

Sample Point: X - B - 1 (Source Code (from below); Your Sample Point ID (left justify)) 9 0 0 6 1 1 (Start Date (YY/MM/DD)) 0 8 3 8 (Start Time (2400 hr. clock)) 0 0 0 (Elapsed Hours (composite))

Source Codes:

Well ..(W) Outfall.....(O) Bottom Sediment....(B) Surface Impoundment....(I) Leachate Collection Sys.....(C) Other Borehole (X)

Soil ...(S) River/Stream..(R) Generation Point ....(G) Treatment Facility .....(T) Lake/Ocean .....(L) Specify

SHUTTLE CONTENTS

BOTTLE				ANALYSIS	SAMPLER		LAB
No	Type	Size	Preserv.		Filt. (Y/N)	Observations	Observations
2	VOA	40	HCL	VOLATILES	N		✓

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) LORI E. LOZIER Date: 6-11-90 Time: 1830
   Signature: [signature] Seal #: 0172177 Intact: YES

2. I have received these materials in good condition from the above person.
   Name: Signature:
   Date: Time: Remarks:

3. I have received these materials in good condition from the above person.
   Name: Signature:
   Date: Time: Remarks:

4. Shuttle Sealed By: (print) LORI E. LOZIER Date: 6-13-90 Time: 1000
   Signature: [signature] Seal #: 0172176 Intact: YES

LAB USE ONLY Opened By: [signature] Date: 6/14/90 Time: 10:45

SHUTTLE # 401 TEMP. °C 6° SEAL # 172176 COND. intact

ETC

FIELD PARAMETER FORM (CC2)

Form 0002
Sample Management
12/89

ETC JOB # FP#1452

Sample Point [X] [B-1] (Source Code / Sample Point I.D.)

FIELD PROCEDURES

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL. IN CASING (Gallons)	VOLUME PURGED (Gallons)
90 06 10	1600	27	37.04	37.04

SAMPLING METHOD:

Sampler Type [E] — A-Submersible Pump, B-ISCO, C-Bladder Pump, D-Dipper/Bottle, E-Bailer, F-Scoop/Shovel, X-Other _____ (SPECIFY OTHER)

Sampler Material [B] — A-Teflon, B-Metal, C-PVC, D-Plastic, X-Other _____ (SPECIFY OTHER)

Tubing Material [ ] — A-Teflon, B-Tygon, C-Polyethylene, D-Silicon, X-Other _____ (SPECIFY OTHER)

Sample Composited [Y/N] _____ Procedure/Proportions

FIELD MEASUREMENTS

Well Elevation (ft/msl) [ ]
Depth to Ground water (ft) [6.00]
Groundwater Elevation (ft msl) [ ]
Well Depth (ft) [21.80]
Sample Depth (non-well) (ft) [ ]

	ph		spec. cond.		other parameter	value	units
1st	6.4	(STD)	9200	um/cm at 25°C	temp (H2O)	9.2	°C
2nd		(STD)		um/cm at 25°C			
3rd		(STD)		um/cm at 25°C			
4th		(STD)		um/cm at 25°C			

Sample Temp [ ] (°C)
Turbidity [ ] NTU

FIELD COMMENTS

Sample Appearance:
Weather Conditions: SUNNY, WINDY 78°F
Other:

FILTERING: Use Chain of Custody (CC1) to indicate which bottles were filtered

Sampler: LORI E LOZIER (Print) Employer: GOLDER ASSOCIATES

I certify that sampling procedures were in accordance with applicable EPA state and corporate protocols.

6-13-90 (Date) [signature] (Signature)

ORIGINAL

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 23 Page 1 of 3

Date 6/14/90 Instr. B

A-Type PP/UOA
Tune file APFIO2
Seq. file BBB
Method file UOAB
ID file FB0257
CB file CB0257
Analyst [illegible]
Reviewed by/Date [illegible] 6/19/90

Batch #'s QU60308

__ Standards Updated
Date ____ By ____

Tape # ____ Inj. ___ ul

Standard	Conc ppm	Lot No.	Lot Vol.
p-BFB	50	9171	1ul
INT STD + SURR	25	9435	10ul
CAL I	50	9528	2,5,10,25,50
CAL II	50	9529	↓

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	P
	p-BFB	>B3309	1ul	—		8:41	OK 1/8 enh	
	QC60308VS	>B3310	5	1	QCAL	9:16	OK Sal Cal I, II	
	QC60308VS	>B3311	5	2			OK ↓	
	QC60308V	>B3312	5	3		10:50	OK BLANK	
	~~p-BFB~~ AC							
	FA9404V	>B3313	5	4		12:29	OK	
	FA9404VS	>B3314	5	5		13:16	OK Sal Cal I, II	
	FA9404VR	>B3315	5	6		14:02	OK ↓	
	FA9405V	>B3316	5	7		14:49	OK	
	FA9401V	>B3317	5	8		15:36	OK	
	FA8780	>B3318	.02	9	1:250	16:22	OK	
	FA7836V	>B3319	5	10		17:09	OK	
	FA9583V	>B3320	5	11		17:55	OK	
	FA9584V	>B3321	5	12		18:43	OK	
	FA9149V	>B3322	5	13		19:29	OK	
	FA9150V	>B3323	5	14		20:16	OK	
	p-BFB	>B3324	1ul	—		8:08	OK 1/6 enh	
	QC60308VS	>B3325	5	15	QCAL	8:34	OK Sal Cal I, II	

R : redo . P : Aroclor search . + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 24 Page 2 of 3

Date 6/15/90 Instr. B

A-Type PP/UOA
Tune file APEI02
Seq. file BBB
Method file UOAB
ID file IB0257
CB file CB0257
Analyst [illegible]
Reviewed by/Date [illegible] 6/19/90

Batch #'s QU60308

Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
SEE PAGE 1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	QC60308U2	>B3326	5	16		9:21	OK BLANK	
	QS60579U2	>B3327	5	1		10:15	OK TCLP BLANK	
	FA9550U2	>B3328	5	2		11:02	OK rr 1:50 for C30	
	FA9601U2	>B3329	5	3			rr str poss corr	
	FA9602U2	>B3330	5	4		12:36	OK	
	FA8728U2	>B3331	5	5		13:23	OK	
	FA9139U2	>B3332	5	6		14:10	OK rr 1:20	
	QC60308V	>B3333	5	7			OK System BLANK	
R	FA9601V2	>B3334	5ml	10		16:40	OK	
	FA9487V2	>B3335	↓	11		17:26	OK	
R	FA9550V2	>B3336	0.1ml	12		18:14	OK	
R	FA9139V2	>B3337	0.25ml	13		19:00	OK	
	FA9484V2	>B3338	5ml	14		19:47	OK	
	QC60308V	>B3339	↓	3			OK Position BLANK	
	QC60308V	>B3340	↓	6			NG Position BLANK	
	P-BFB	>B3341	1ul	—		09:46	OK 118(ENH)-11	
	QC60308VS	>B3342	5ml	1	(QCAL)	10:29	OK 5ul all STD's	
	QC60308V3	>B3343	↓	2		11:16	NG	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 25 Page 3 of 3

Date 6/18/90 Instr. B

A-Type
Tune file
Seq. file Pg #1 KBB
Method file
ID file IB0257
CB file CB0257
Analyst K. Boyle
Reviewed by/Date 6/19/90

Batch #'s QV60308

Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg #1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	QC60308V3	>B3344	5ml	3		12:58	OK CMPD# 27 Not Needed	
	FA9482V3	>B3345	5ml	9		13:45	OK rr 1:20 CMPD# 18	
	FA9483V3	>B3346	↓	10			rr STR Possible Compy	
	FA9485V3	>B3347	↓	11			rr STR " "	
	FA9486V3	>B3348	0.0081	12	1:5000		rr 1:10	
	QC60308V	>B3349	5ml	6				
	QC60308V	>B3350	↓	7				
	QC60308V	>B3351	↓	8				
(P)	FA9482V3	>B3352	0.25	13	1:20			
	FA9483V3	>B3353	5ml	14				
	FA9485V3	>B3354	5ml	15				
	FA9486V3	>B3355	0.5ml	16	1:10			

R : redo P : Aroclor search + : Plus search

OHM Corporation

ETC Environmental Testing and Certification Corp.

Technical Report

for

GOLDER ASSOCIATES

3737 CHAMBLEE-TUCKER ROAD

ATLANTA, GA 30341

Chain of Custody Data Required for ETC Data Management Summary Reports						
FA9483	GOLDER ASSOCIATES	490	XB-2	900611	1838	
ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours

Richard P. Albert

Vice President, General Manager

This Technical Report is an INSITE℠ service generated by LODESTAR℠ Data Management Software.

284 Raritan Center Parkway ■ CN 7808 ■ Edison, New Jersey 08818-7808 ■ 201-225-5600

COMMENTS

COMMENTS FOR SPECIFIC ANALYSES

VOLATILE FRACTION:

FA9483

Criteria for Vinyl chloride was not met. However, the compound was not identified in these samples.

TABULATED ANALYTICAL RESULTS

ETC

JUN 26, 1990
QV60311

TABLE 1: QUANTITATIVE RESULTS and QUALITY ASSURANCE DATA

Volatile Compounds - GC/MS Analysis Data (QR01)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9483	GOLDER ASSOCIATES	490	XB-2	900611	1838	0

NPDES Number	Compound	Results		QC Replicate		QC Blank and Spiked Blank			QC Matrix Spike		
		Sample Concen. ug/l	MDL ug/l	First ug/l	Second ug/l	Blank Data ug/l	Concen Added ug/l	% Recov	Unspiked Sample ug/l	Concen. Added ug/l	% Recov
15V	1,2-Dichloroethane	159	2.8	65.2	65.1	ND	50.0	151	ND	50.0	130

Acrolein and Acrylonitrile values are screen only.

All zero and variable recoveries have been manually verified.

ETC

JUN 26, 1990

TABLE 2: METHOD PERFORMANCE DATA
Surrogate Recovery Water - GC/MS Data (QR20)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9483	GOLDER ASSOCIATES	490	XB-2	900611	1838	0

Compound	Amount added ug	% Recovery	IFB EPA Control Limits Lower	IFB EPA Control Limits Upper
VOLATILE FRACTION (GC/MS)				
Toluene-D8	.250	99	88	110
p-Bromofluorobenzene	.250	98	86	115
1,2-Dichloroethane-D4	.250	108	76	114
ACID FRACTION (GC/MS)				
Phenol-D5	-	-	10	94
2-Fluorophenol	-	-	21	100
2,4,6-Tribromophenol	-	-	10	123
BASE/NEUTRAL FRACTION (GC/MS)				
Nitrobenzene-D5	-	-	35	114
2-Fluorobiphenyl	-	-	43	116
Terphenyl-D14	-	-	33	141
PESTICIDE/PCB FRACTION (GC)				
Dibutylchlorendate	-	-	24**	154**
2,4,5,6-Tetrachloro-m-xylene	-	-	46	185
METHOD 601				
Bromochloromethane	-	-	82	124
METHOD 602				
a,a,a-Trifluorotoluene	-	-	80	120

** Advisory Limits Only

GC/MS QUALITY CONTROL DATA

Instrument Performance Check

- Tuning and Mass Calibration

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: FTC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >A1683 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B A BFB Injection Time: 1101

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.5
75	30.0 - 60.0% of mass 95	51.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	72.3
175	5.0 - 9.0% of mass 174	5.5 (7.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	69.9 (96.8)1
177	5.0 - 9.0% of mass 176	5.3 (7.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60311VS	>A1684	06/19/90	1133
02		QC60311VS	>A1685	06/19/90	1217
03		QC60311V	>A1688	06/19/90	1557
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

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VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: FTC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >A1689 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1713

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) Pack.

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.2
75	30.0 - 60.0% of mass 95	52.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	72.5
175	5.0 - 9.0% of mass 174	5.8 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	69.2 (95.5)1
177	5.0 - 9.0% of mass 176	5.4 (7.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		FA9397U	>A1690	06/19/90	1748
02		FA9397US	>A1691	06/19/90	1832
03		FA9397UR	>A1692	06/19/90	1915
04		FA9483U	>A1695	06/19/90	2125
05		FA9485U	>A1696	06/19/90	2209
06		FA9395U	>A1698	06/19/90	2336
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

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VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >A1702 BFB Injection Date: 06/20/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0911

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) Pack

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.6
75	30.0 - 60.0% of mass 95	52.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	59.0
175	5.0 - 9.0% of mass 174	4.7 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	56.2 (95.3)1
177	5.0 - 9.0% of mass 176	4.4 (7.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60311VS	>A1703	06/20/90	0934
02		QC60311V2	>A1706	06/20/90	1274
03		FA9399V2	>A1707	06/20/90	1308
04		~~FA9485V2~~	~~>A1708~~	~~06/20/90~~	~~1344~~
05		FA9486V2	>A1709	06/20/90	1436
06		FA9280V2	>A1710	06/20/90	1500
07		FA9177V2	>A1711	06/20/90	1604
08		FA9177V2	>A1712	06/20/90	1708
09		FA9169V2	>A1714	06/20/90	1835
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

ET 6/26/90

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CHAIN OF CUSTODY DOCUMENTATION

- Chain of Custody Forms
- Laboratory Chronicles
- Subcontract

ENVIRONMENTAL TESTING and CERTIFICATION

CHAIN OF CUSTODY FORM (CC1)

ORIGINAL

Seal No. 0172177 ETC Job # FA9483

Date Sealed 90/06/04 By: MC

Company: CHEMICAL WASTE MANAGEMENT Attn.: STEVE LUNNEMAN

Facility/Site: Phone: (~~404~~ 419) 547 - 7791

Address: 2956 STATE ROUTE 412, VICKERY, OH 43464

SAMPLE IDENTIFICATION

Facility: 4 7 0 (Facility/Site Code) (Optional Sample Point Descriptions)

Sample Point: X (Source Code (from below)) - B-2 (Your Sample Point ID (left justify)) 90/06/11 (Start Date (YY/MM/DD)) 1830 (Start Time (2400 hr. clock)) 0000 (Elapsed Hours (composite))

Source Codes:
Well ..(W) Outfall.....(O) Bottom Sediment....(B) Surface Impoundment....(I) Leachate Collection Sys.....(C) Other Borehole.....(X)
Soil ...(S) River/Stream..(R) Generation Point....(G) Treatment Facility.....(T) Lake/Ocean.....(L) Specify

SHUTTLE CONTENTS

BOTTLE				ANALYSIS	SAMPLER		LAB
No	Type	Size	Preserv.		Filt. (Y/N)	Observations	Observations
2	VOA	40	HCL	VOLATILES	N		✓

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) LORI E. LOZIER Date: 6-11-90 Time: 1830
Signature: Seal #: 0172177 Intact: YES

2. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

3. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

4. Shuttle Sealed By: (print) LORI E. LOZIER Date: 6-13-90 Time: 1000
Signature: Seal #: 0172176 Intact: YES

LAB USE ONLY Opened By: Date: 6/14/90 Time: 10:15 Hrs

SHUTTLE # 401 TEMP. °C 60 SEAL # 172176 COND. intact

ETC

FIELD PARAMETER FORM (CC2)

Form 0002
Sample Management
12/89

ETC JOB # FA-1483

Sample Point [X] [B-2]
Source Code — Sample Point I.D.

FIELD PROCEDURES

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL. IN CASING (Gallons)	VOLUME PURGED (Gallons)
910610	1655	2.6	39.66	39.66

SAMPLING METHOD:

Sampler Type [E] A-Submersible Pump, B-ISCO, C-Bladder Pump, D-Dipper/Bottle, E-Bailer, F-Scoop/Shovel, X-Other ____ (SPECIFY OTHER)

Sampler Material [B] A-Teflon, B-Metal, C-PVC, D-Plastic, X-Other ____ (SPECIFY OTHER)

Tubing Material [ ] A-Teflon, B-Tygon, C-Polyethylene, D-Silicon, X-Other ____ (SPECIFY OTHER)

Sample Composited [Y/N] ____ Procedure/Proportions

FIELD MEASUREMENTS

Well Elevation (ft/msl) [ ]
Depth to Ground water (ft) [6.50]
Groundwater Elevation (ft msl) [ ]
Well Depth (ft) [21.80]
Sample Depth (non-well) (ft) [ ]

	ph	(STD)		spec. cond.		(other parameter)	value	units
1st	6.45		1st	5800	um/cm at 25°C	H2O temp	6.7	°C
2nd			2nd		um/cm at 25°C			
3rd			3rd		um/cm at 25°C			
4th			4th		um/cm at 25°C			

Sample Temp [ ] (°C)
Turbidity [ ] NTU

FIELD COMMENTS

Sample Appearance: ____
Weather Conditions: SUNNY WINDY, 78°F
Other: ____

FILTERING: Use Chain of Custody (CC1) to indicate which bottles were filtered

Sampler: LORI E LOZIER (Print) Employer: GOLDER ASSOCIATES

I certify that sampling procedures were in accordance with applicable EPA state and corporate protocols.

6-13-90 (Date) [signature] (Signature)

ORIGINAL

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 27 Page 1 of 2

Date 6/19/90 Instr. A

A-Type PP/UOA
Tune file APEI01
Seq. file AAA ,
Method file UOA A
ID file IA0240
CB file CA0240
Analyst
Reviewed by/Date
Batch #'s QV60311

Standard	Conc ppm	Lot No.	Lot Vol.
p-BFB	50	9171	1ul
INT STD + SURR	25	9435	10ul
CAL I	50	9528	2,5,10,15,µ
CAL II	50	9529	
APB	50	9434	
METH METHACRYLIN	50	9240	
XUOA	50	9505	
TCLP	50/500	9238	

__ Standards Updated
Date By

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	F
	p-BFB	>A1683	1ul	—		11:01	OK 126 enh	
	QC60311VS	>A1684	5	17	(DCAL)	11:33	OK 5ul All STDS KB	
	QC60311VS	>A1685	5	18	(DCAL)	12:17	OK 6/20/90	
	QC60311V	>A1686	5	19			ng pos BLANK	
	QC60311V	>A1687	5	21			ng pos BLANK	
	QC60311V	>A1688	5	22		15:57	OK BLANK	
	p-BFB	>A1689	1ul	—		17:13	OK 123 -110	
	FA9397V	>A1690	5	24		17:48	OK	
	FA9397 VS	>A1691	5	25		18:32	OK 5ul all STD's	
	FA9397 VR	>A1692	5	26		19:15	OK 5ul	
	FA9399 V	>A1693	5	27			rr 1:10	
	FA9482V	>A1694	.25	28	1:20	20:42	OK FOR QV60308	
	FA9483V	>A1695	5	29		21:25	OK	
	FA9485V	>A1696	5	30			OK SURR OUT	
	FA9486V	>A1697	.5	31	1:10		rr str	
	FA9395V	>A1698	.01	32	1:500	23:36	OK	
	QC60311V	>A1699	5	19			OK pos BLANK	
	QC60311V	>A1700	5	20			OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 28 Page 2 of 2

Date 6/20/90 Instr. A

A-Type
Tune file
Seq. file See Pg #1
Method file
ID file
CB file
Analyst K Boyn
Reviewed by/Date
Batch #'s QV60311

1__ Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg #1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments
	QC60311	>A1701	5	31			OK gas blank
	PBFB	>A1702	1ul	—		09:11	OK 127-26
	QC60311VS	>A1703	5ml	17	(QCAL)	09:34	OK 5ul all STD's
	QC60311V2	>A1704	↓	18			NG
	QC60311V2	>A1705	5ml	24			NG
	QC60311V2	>A1706	5ml	24		12:24	OK
R	FA9399V2	>A1707	0.5ml	18	1:10	13:08	OK
R	FA9485V2	>A1708	5ml	19		13:52	OK contains >A1695
	FA9486V2	>A1709		20		14:36	OK
	FA9280V2	>A1710		21		15:20	OK
	FA9177V2	>A1711	↓	22		16:04	OK rr ~~1:10~~ 1:5 ICB 6/21/90
R	FA9177V2	>A1712	1.0ml	18		17:08	OK
	FA9796V2	>A1713	5ml	19		17:51	OK KB 6/21/90 matrix rr str
GT 6/20/90	~~FA9796~~ FA9169 V2	>A1714	0.05ml	20		18:35	OK
	FA9795V2	>A1715	5ml	21			NG rr str
	FA9755V2	>A1716	↓	22			rr str
	FA9757V2	>A1717	↓	23			rr str
	P-BFB	>A1718	1ul	—			Not Run

R : redo , P : Aroclor search , + : Plus search

OHM Corporation

ETC Environmental Testing and Certification Corp.

Technical Report

for

GOLDER ASSOCIATES

3737 CHAMBLEE-TUCKER ROAD

ATLANTA, GA 30341

Chain of Custody Data Required for ETC Data Management Summary Reports						
FA9484	GOLDER ASSOCIATES	490	XB-3	900612	1830	
ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours

Richard P. Albert

Vice President, General Manager

This Technical Report is an INSITE℠ service generated by LODESTAR℠ Data Management Software.

284 Raritan Center Parkway ■ CN 7808 ■ Edison, New Jersey 08818-7808 ■ 201-225-5600

TABULATED ANALYTICAL RESULTS

ETC

JUN 19, 1990

TABLE 1: QUANTITATIVE RESULTS and QUALITY ASSURANCE DATA

Volatile Compounds - GC/MS Analysis Data (QR01)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9484	GOLDER ASSOCIATES	490	XB-3	900612	1830	0

NPDES Number	Compound	Results		QC Replicate		QC Blank and Spiked Blank			QC Matrix Spike		
		Sample Concen. ug/l	MDL ug/l	First ug/l	Second ug/l	Blank Data ug/l	Concen. Added ug/l	% Recov	Unspiked Sample ug/l	Concen. Added ug/l	% Recov
15V	1,2-Dichloroethane	ND	2.8	55.4	61.6	ND	50.0	105	ND	50.0	111

Acrolein and Acrylonitrile values are screen only.

All zero and variable recoveries have been manually verified.

ETC

JUN 19, 1990

TABLE 2: METHOD PERFORMANCE DATA
Surrogate Recovery Water - GC/MS Data (QR20)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9484	GOLDER ASSOCIATES	490	XB-3	900612	1830	0

Compound	Amount added ug	% Recovery	IFB EPA Control Limits Lower	IFB EPA Control Limits Upper
VOLATILE FRACTION (GC/MS)				
Toluene-D8	.250	100	88	110
p-Bromofluorobenzene	.250	106	86	115
1,2-Dichloroethane-D4	.250	93	76	114
ACID FRACTION (GC/MS)				
Phenol-D5	-	-	10	94
2-Fluorophenol	-	-	21	100
2,4,6-Tribromophenol	-	-	10	123
BASE/NEUTRAL FRACTION (GC/MS)				
Nitrobenzene-D5	-	-	35	114
2-Fluorobiphenyl	-	-	43	116
Terphenyl-D14	-	-	33	141
PESTICIDE/PCB FRACTION (GC)				
Dibutylchlorendate	-	-	24**	154**
2,4,5,6-Tetrachloro-m-xylene	-	-	46	185
METHOD 601				
Bromochloromethane	-	-	82	124
METHOD 602				
a,a,a-Trifluorotoluene	-	-	80	120

** Advisory Limits Only

GC/MS QUALITY CONTROL DATA

Instrument Performance Check

- Tuning and Mass Calibration

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3341 BFB Injection Date: 06/18/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0946

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.2
75	30.0 - 60.0% of mass 95	53.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	78.0
175	5.0 - 9.0% of mass 174	6.4 (8.2)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.4 (95.4)1
177	5.0 - 9.0% of mass 176	3.8 (5.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60308VS	>B3342	06/18/90	1029
02		QC60308V3	>B3344	06/18/90	1258
03		FA9482V3	>B3345	06/18/90	1345
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

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VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3309 BFB Injection Date: 06/14/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0841

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) Cap.

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.1
75	30.0 - 60.0% of mass 95	55.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	72.3
175	5.0 - 9.0% of mass 174	5.0 (6.9)1
176	Greater than 95.0%, but less than 101.0% of mass 174	70.9 (98.1)1
177	5.0 - 9.0% of mass 176	5.8 (8.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60308VS	>B3310	06/14/90	0916
02		QC60308VS	>B3311	06/14/90	1003
03		QC60308V	>B3312	06/14/90	1050
04		FA9404V	>B3313	06/14/90	1229
05		FA9404VS	>B3314	06/14/90	1316
06		FA9404VR	>B3315	06/14/90	1402
07		FA9405V	>B3316	06/14/90	1449
08		FA9401V	>B3317	06/14/90	1536
09		FA8780V	>B3318	06/14/90	1622
10		FA7836V	>B3319	06/14/90	1709
11		FA9583V	>B3320	06/14/90	1755
12		FA9584V	>B3321	06/14/90	1843
13		FA9149V	>B3322	06/14/90	1929
14		FA9150V	>B3323	06/14/90	2016
15					
16					
17					
18					
19					
20					
21					
22					

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VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3324 BFB Injection Date: 06/15/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0808

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.7
75	30.0 - 60.0% of mass 95	49.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	73.8
175	5.0 - 9.0% of mass 174	5.4 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.5 (97.0)1
177	5.0 - 9.0% of mass 176	4.8 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60308VS	>B3325	06/15/90	0834
02		QC60308V2	>B3326	06/15/90	0921
03		QS60579V2	>B3327	06/15/90	1015
04		FA9550V2	>B3328	06/15/90	1102
05		~~FA9601V2~~	~~>B3329~~	06/15/90	1149
06		FA9602V2	>B3330	06/15/90	1236
07		FA8728V2	>B3331	06/15/90	1323
08		FA9139V2	>B3332	06/15/90	1410
09		~~QC60308V~~	~~>B3333~~	~~06/15/90~~	~~1529~~
10		FA9601V2	>B3334	06/15/90	1640
11		FA9487V2	>B3335	06/15/90	1726
12		FA9550V2	>B3336	06/15/90	1814
13		FA9139V2	>B3337	06/15/90	1900
14		FA9484V2	>B3338	06/15/90	1947
15					
16					
17					
18					
19					
20					
21					
22					

CT 6/19/9

FORM V VOA

1/87 Rev.

CHAIN OF CUSTODY DOCUMENTATION

- Chain of Custody Forms
- Laboratory Chronicles
- Subcontract

ENVIRONMENTAL TESTING and CERTIFICATION

CHAIN OF CUSTODY FORM (CC1)

ORIGINAL

Seal No. 0172177 ETC Job # FA9484

Date Sealed 90/06/04 By: ML

Company: CHEMICAL WASTE MANAGEMENT Attn.: STEVE LUNNEMAN

Facility/Site: Phone: ~~(404)~~ 419 547 - 7791

Address: 2986 STATE ROUTE 412, VICKERY, OH 43464

SAMPLE IDENTIFICATION

Facility: 4 9 0 (Facility/Site Code) (Optional Sample Point Descriptions)

Sample Point: X - B - 3 (Source Code (from below); Your Sample Point ID (left justify)) 90 06 12 (Start Date (YY/MM/DD)) 1 8 3 0 (Start Time (2400 hr. clock)) 0 0 0 (Elapsed Hours (composite))

Source Codes:

Well ..(W) Outfall .....(O) Bottom Sediment ....(B) Surface Impoundment....(I) Leachate Collection Sys.....(C) Other Borehole .....(X)

Soil ...(S) River/Stream..(R) Generation Point ....(G) Treatment Facility .....(T) Lake/Ocean .....(L) Specify

SHUTTLE CONTENTS

BOTTLE No	Type	Size	Preserv.	ANALYSIS	SAMPLER Filt. (Y/N)	SAMPLER Observations	LAB Observations
2	VOA	40	HCL	VOLATILES			✓

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) LORI E. LOZIER Date: 6-11-90 Time: 1830
   Signature: [signature] Seal #: 0172177 Intact: YES

2. I have received these materials in good condition from the above person.
   Name: Signature:
   Date: Time: Remarks:

3. I have received these materials in good condition from the above person.
   Name: Signature:
   Date: Time: Remarks:

4. Shuttle Sealed By: (print) LORI E. LOZIER Date: 6-13-90 Time: 1000
   Signature: [signature] Seal #: 0172176 Intact:

LAB USE ONLY Opened By: [signature] Date: 6-14-90 Time: 10:15 AM

SHUTTLE # A01 TEMP. °C 60° SEAL # 172176 COND. intact

ETC

FIELD PARAMETER FORM (CC2)

Form 0002
Sample Management
12/89

ETC JOB # FAG1454

Sample Point [ ] Source Code [ ] Sample Point I.D.

FIELD PROCEDURES

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL. IN CASING (Gallons)	VOLUME PURGED (Gallons)
910611	1800	24	48.9	48.9

SAMPLING METHOD:

Sampler Type [E] A-Submersible Pump, B-ISCO, C-Bladder Pump, D-Dipper/Bottle, E-Bailer, F-Scoop/Shovel, X-Other ____ (SPECIFY OTHER)

Sampler Material [B] A-Teflon, B-Metal, C-PVC, D-Plastic, X-Other ____ (SPECIFY OTHER)

Tubing Material [ ] A-Teflon, B-Tygon, C-Polyethylene, D-Silicon, X-Other ____ (SPECIFY OTHER)

Sample Composited [Y/N] ____ Procedure/Proportions

FIELD MEASUREMENTS

Well Elevation (ft/msl) [ ]

Depth to Ground water (ft) [34]

Groundwater Elevation (ft msl) [ ]

Well Depth (ft) [218]

Sample Depth (non-well) (ft) [ ]

	ph		spec. cond.		(other parameter)	value	units
1st	6.93	(STD)	1050	um/cm at 25° C	H_2O temp.	21.0	°C
2nd		(STD)		um/cm at 25°C			
3rd		(STD)		um/cm at 25°C			
4th		(STD)		um/cm at 25°C			

Sample Temp [ ] (°C)

Turbidity [ ] NTU

FIELD COMMENTS

Sample Appearance:

Weather Conditions: SUNNY, WINDY, 78°F

Other:

FILTERING: Use Chain of Custody (CC1) to indicate which bottles were filtered

Sampler: LORI E. LOZIER (Print) Employer: GOLDER ASSOCIATES

I certify that sampling procedures were in accordance with applicable EPA state and corporate protocols.

6-13-90 (Date) [signature] (Signature)

ORIGINAL

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 23 Page 1 of 3

Date 6/14/90 Instr. B

A-Type PP/UOA
une file APFI02
Seq. file BBB
Method file UOAB
ID file FB0257
CB file CB0257
Analyst [illegible]
Reviewed by/Date [illegible] 6/19/90

Batch #'s QV60308

Standard	Conc ppm	Lot No.	Lot Vol.
p-BFB	50	9171	1ul
INT STD + SURR	25	9435	10ul
CALI	50	9528	2,5,10,25,50
CALII	50	9529	↓

Standards Updated
Date By

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	P
	p-BFB	>B3309	1ul	—		8:41	OK 1/8 each	
	QC60308VS	>B3310	5	1	QCAL	9:16	OK 5ul Cal I, II	
	QC60308VS	>B3311	5	2			OK ↓	
	QC60308V	>B3312	5	3		10:50	OK BLANK	
	~~p-BFB~~							
	FA9404V	>B3313	5	4		12:29	OK	
	FA9404VS	>B3314	5	5		13:16	OK 5ul CalI, II	
	FA9404VR	>B3315	5	6		14:02	OK ↓	
	FA9405V	>B3316	5	7		14:49	OK	
	FA9401V	>B3317	5	8		15:36	OK	
	FA8780	>B3318	.02	9	1:250	16:22	OK	
	FA7836V	>B3319	5	10		17:09	OK	
	FA9583V	>B3320	5	11		17:55	OK	
	FA9584V	>B3321	5	12		18:43	OK	
	FA9149V	>B3322	5	13		19:29	OK	
	FA9150V	>B3323	5	14		20:16	OK	
	p-BFB	>B3324	1ul	—		8:08	OK 1/6 each	
	QC60308VS	>B3325	5	15	QCAL	8:34	OK 5ul CalI, II	

R : redo . P : Aroclor search . + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 24 Page 2 of 3

Date 6/15/90 Instr. B

Q-Type PP/VOA
Tune file APEI02
Seq. file BBB
Method file VOAB
ID file IB0257
CB file CB0257
Analyst [illegible]
Reviewed By/Date [illegible] 6/19/90

Batch #'s QV60308

__ Standards Updated
Date _____ By _____

Tape # _____ Inj. ___ ul

Standard	Conc ppm	Lot No.	Lot Vol.
SEE PAGE 1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	QC60308V2	>B3326	5	16		9:21	OK BLANK	
	QS60579V2	>B3327	5	1		10:15	OK TCLP BLANK	
	FA9550V2	>B3328	5	2		11:02	OK rr 1:50 for C30	
	FA9601V2	>B3329	5	3			rr str poss carr	
	FA9602V2	>B3330	5	4		12:36	OK	
	FA8728V2	>B3331	5	5		13:23	OK	
	FA9139V2	>B3332	5	6		14:10	OK rr 1:20	
	QC60308V	>B3333	5	7			OK System blank	
R	FA9601V2	>B3334	5ml	10		16:40	OK	
	FA9487V2	>B3335	↓	11		17:26	OK	
R	FA9550V2	>B3336	0.1ml	12		18:14	OK	
R	FA9139V2	>B3337	0.25ml	13		19:00	OK	
	FA9484V2	>B3338	5ml	14		19:47	OK	
	QC60308V	>B3339		3			OK Position BLANK	
	QC60308V	>B3340	↓	6			NG Position BLANK	
	P-BFB	>B3341	1ul	—		09:46	OK 118(ENH)-11	
	QC60308VS	>B3342	5ml	1	(Qcal)	10:29	OK 5ul all STD's	
	QC60308V3	>B3343	↓	2		11:16	NG	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 25 Page 3 of 3

Date 6/18/90 Instr. B

A-Type
Tune file
Seq. file Pg #1 KBB
Method file See
ID file IB0257
CB file CB0257
Analyst K. Boyle
Reviewed by/Date 6/19/90

Batch #'s QV60308

Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg #1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	QC60308V3	>B3344	5ml	3		12:58	OK CMPD# 27 Not Needed	
	FA9482V3	>B3345	5ml	9		13:45	OK rr 1:20 CMPD# 18	
	FA9483V3	>B3346		10			rr str Possible Compn	
	FA9485V3	>B3347		11			rr str " "	
	FA9486V3	>B3348	0.005l 0.0 gm	12	1:5000		rr 1:10	
	QC60308V	>B3349	5ml	6				
	QC60308V	>B3350		7				
	QC60308V	>B3351		8				
R	FA9482V3	>B3352	0.25	13	1:20			
	FA9483V3	>B3353	5ml	14				
	FA9485V3	>B3354	5ml	15				
	FA9486V3	>B3355	0.5ml	16	1:10			

R : redo P : Aroclor search + : Plus search

OHM Corporation

ETC Environmental Testing and Certification Corp.

Technical Report

for

GOLDER ASSOCIATES

3737 CHAMBLEE-TUCKER ROAD

ATLANTA, GA 30341

Chain of Custody Data Required for ETC Data Management Summary Reports						
FA9485	GOLDER ASSOCIATES	490	XB-4	900612	1859	
ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours

Richard P. Albert

Vice President, General Manager

This Technical Report is an INSITE℠ service generated by LODESTAR℠ Data Management Software.

284 Raritan Center Parkway ■ CN 7808 ■ Edison, New Jersey 08818-7808 ■ 201-225-5600

COMMENTS

COMMENTS FOR SPECIFIC ANALYSES

VOLATILE FRACTION:

FA9485

Criteria for Vinyl Chloride was not met. However, the compound was not identified in these samples.

SURROGATE RECOVERY:

Surrogate recoveries outside of control limits may be attributed to the sample matrix, confirmed by replicate analysis.

TABULATED ANALYTICAL RESULTS

ETC

JUN 26, 1990

TABLE 1: QUANTITATIVE RESULTS and QUALITY ASSURANCE DATA

Volatile Compounds - GC/MS Analysis Data (QR01)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9485	GOLDER ASSOCIATES	490	XB-4	900612	1859	0

NPDES Number	Compound	Results		QC Replicate		QC Blank and Spiked Blank			QC Matrix Spike		
		Sample Concen. ug/l	MDL ug/l	First ug/l	Second ug/l	Blank Data ug/l	Concen. Added ug/l	% Recov	Unspiked Sample ug/l	Concen. Added ug/l	% Recov
15V	1,2-Dichloroethane	33.67	2.8	65.2	65.1	ND	50.0	151	ND	50.0	130

Acrolein and Acrylonitrile values are screen only.

All zero and variable recoveries have been manually verified.

ETC

JUN 26, 1990

TABLE 2: METHOD PERFORMANCE DATA
Surrogate Recovery Water - GC/MS Data (QR20)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9485	GOLDER ASSOCIATES	490	XB-4	900612	1859	0

Compound	Amount added ug	% Recovery	IFB EPA Control Limits Lower	IFB EPA Control Limits Upper
VOLATILE FRACTION (GC/MS)				
Toluene-D8	.250	102	88	110
p-Bromofluorobenzene	.250	81*	86	115
1,2-Dichloroethane-D4	.250	131*	76	114
ACID FRACTION (GC/MS)				
Phenol-D5	-	-	10	94
2-Fluorophenol	-	-	21	100
2,4,6-Tribromophenol	-	-	10	123
BASE/NEUTRAL FRACTION (GC/MS)				
Nitrobenzene-D5	-	-	35	114
2-Fluorobiphenyl	-	-	43	116
Terphenyl-D14	-	-	33	141
PESTICIDE/PCB FRACTION (GC)				
Dibutylchlorendate	-	-	24**	154**
2,4,5,6-Tetrachloro-m-xylene	-	-	46	185
METHOD 601				
Bromochloromethane	-	-	82	124
METHOD 602				
a,a,a-Trifluorotoluene	-	-	80	120

* Recovery Manually Verified

** Advisory Limits Only

GC/MS QUALITY CONTROL DATA

Instrument Performance Check

- Tuning and Mass Calibration

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: FTC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >A1683 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B A BFB Injection Time: 1101

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.5
75	30.0 - 60.0% of mass 95	51.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	72.3
175	5.0 - 9.0% of mass 174	5.5 (7.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	69.9 (96.8)1
177	5.0 - 9.0% of mass 176	5.3 (7.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60311VS	>A1684	06/19/90	1133
02		QC60311VS	>A1685	06/19/90	1217
03		QC60311V	>A1688	06/19/90	1557
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

 FORM V VOA 1/87 Rev.

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >A1689 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1713

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) Pack.

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.2
75	30.0 - 60.0% of mass 95	52.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	72.5
175	5.0 - 9.0% of mass 174	5.8 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	69.2 (95.5)1
177	5.0 - 9.0% of mass 176	5.4 (7.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		FA9397U	>A1690	06/19/90	1748
02		FA9397US	>A1691	06/19/90	1832
03		FA9397UR	>A1692	06/19/90	1915
04		FA9483U	>A1695	06/19/90	2125
05		FA9485U	>A1696	06/19/90	2209
06		FA9395U	>A1698	06/19/90	2336
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: FTC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >A1202 BFB Injection Date: 06/20/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0911

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.6
75	30.0 - 60.0% of mass 95	52.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	59.0
175	5.0 - 9.0% of mass 174	4.7 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	56.2 (95.3)1
177	5.0 - 9.0% of mass 176	4.4 (7.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60311VS	>A1203	06/20/90	0934
02		QC60311V2	>A1206	06/20/90	1204
03		FA9399V2	>A1207	06/20/90	1308
04		~~FA9485V2~~	~~>A1208~~	~~06/20/90~~	~~1344~~
05		FA9486V2	>A1209	06/20/90	1436
06		FA9280V2	>A1210	06/20/90	1500
07		FA9177V2	>A1211	06/20/90	1604
08		FA9177V2	>A1212	06/20/90	1708
09		FA9169V2	>A1214	06/20/90	1835
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

CT 6/26/90

FORM V VOA

1/87 Rev.

CHAIN OF CUSTODY DOCUMENTATION

- Chain of Custody Forms
- Laboratory Chronicles
- Subcontract

ENVIRONMENTAL TESTING and CERTIFICATION

CHAIN OF CUSTODY FORM (CC1)

ORIGINAL

Seal No. 0172177 ETC Job # FA9488

Date Sealed 9[illegible] By: ML

Company: CHEMICAL WASTE MANAGEMENT Attn.: STEVE LONNEMAN

Facility/Site: Phone: (419) 547 - 7791

Address: 5956 STATE ROUTE 412, VICKERY, OH 43464

SAMPLE IDENTIFICATION

Facility: 4 9 0 (Facility/Site Code) (Optional Sample Point Descriptions)

Sample Point: X - B - 14 (Source Code (from below); Your Sample Point ID (left justify)) 9 0 0 6 1 2 (Start Date (YY/MM/DD)) 1 8 5 9 (Start Time (2400 hr. clock)) 0 0 0 (Elapsed Hours (composite))

Source Codes:
Well ..(W) Outfall.....(O) Bottom Sediment....(B) Surface Impoundment....(I) Leachate Collection Sys.....(C) Other Borehole.....(X)
Soil ...(S) River/Stream..(R) Generation Point....(G) Treatment Facility .....(T) Lake/Ocean .....(L) Specify

SHUTTLE CONTENTS

BOTTLE No	Type	Size	Preserv.	ANALYSIS	SAMPLER Filt. (Y/N)	SAMPLER Observations	LAB Observations
2	VOA	40	HCL	VOLATILES	N		✓

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) LORI E. LOZIER Date: 96-11-90 Time: 1830
Signature: [signature] Seal #: 0172177 Intact: YES

2. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

3. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

4. Shuttle Sealed By: (print) LORI E. LOZIER Date: 6-13-90 Time: 1000
Signature: [signature] Seal #: 0172176 Intact: YES

LAB USE ONLY Opened By: [signature] Date: 6/14/90 Time: 10:15
SHUTTLE # 401 TEMP. °C 6° SEAL # 172176 COND. [illegible]

ETC

FIELD PARAMETER FORM (CC2)

Form 0002
Sample Management
12/89

ETC JOB # F1-6485

Sample Point [X] [B-14] (Source Code / Sample Point I.D.)

FIELD PROCEDURES

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL. IN CASING (Gallons)	VOLUME PURGED (Gallons)
90 06 11	1820	2.5	315.896	315.896

SAMPLING METHOD:

Sampler Type [E] A-Submersible Pump, B-ISCO, C-Bladder Pump, D-Dipper/Bottle, E-Bailer, F-Scoop/Shovel, X-Other ____ (SPECIFY OTHER)

Sampler Material [B] A-Teflon, B-Metal, C-PVC, D-Plastic, X-Other ____ (SPECIFY OTHER)

Tubing Material [ ] A-Teflon, B-Tygon, C-Polyethylene, D-Silicon, X-Other ____ (SPECIFY OTHER)

Sample Composited [Y/N] ____ Procedure/Proportions

FIELD MEASUREMENTS

Well Elevation (ft/msl) ____

Depth to Ground water (ft) 7.80

Groundwater Elevation (ft msl) ____

Well Depth (ft) 21.9

Sample Depth (non-well) (ft) ____

	ph	(STD)		spec. cond.	um/cm at 25°C	(other parameter)	value	units
1st	6.55	(STD)	1st	3100	um/cm at 25°C	H_2O temp	13.9	°C
2nd		(STD)	2nd		um/cm at 25°C			
3rd		(STD)	3rd		um/cm at 25°C			
4th		(STD)	4th		um/cm at 25°C			

Sample Temp ____ (°C)

Turbidity ____ NTU

FIELD COMMENTS

Sample Appearance: ____

Weather Conditions: SUNNY, WINDY, 78°F

Other: ____

FILTERING: Use Chain of Custody (CC1) to indicate which bottles were filtered

Sampler: LORI E. LOZIER (Print) Employer: GOLDER ASSOCIATES

I certify that sampling procedures were in accordance with applicable EPA state and corporate protocols.

6-13-90 (Date) [signature] (Signature)

ORIGINAL

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 27 Page 1 of 2

Date 6/19/90 Instr. A

A-Type PP/UOA
Tune file APEI01
Seq. file AAA ,
Method file UOA A
ID file IA0240
CB file CA0240
Analyst
Reviewed by/Date
Batch #'s QV60311

Standard	Conc ppm	Lot No.	Lot Vol.
p-BFB	50	9171	1ul
INT STD + SURR	25	9435	10ul
CAL I	50	9528	2,5,10,15,20
CAL II	50	9529	↓
APB	50	9434	
METH METHACRYLIN	50	9240	
XUOA	50	9505	
TCLP	50/500	9238	

__ Standards Updated
Date By

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	F
	p-BFB	>A1682	1ul	—		11:01	OK 126 enh	
	QC60311US	>A1683	5	17	(DCAL)	11:33	OK 5ul All STDS	KB
	QC60311US	>A1685	5	18	(DCAL)	12:17	OK 6/26/90 ↓	
	QC60311U	>A1686	5	19			ng pos BLANK	
	QC60311U	>A1687	5	21			ng pos BLANK	
	QC60311U	>A1688	5	22		15:57	OK BLANK	
	p-BFB	>A1689	1ul	—		17:13	OK 123 — 110	
	FA9397U	>A1690	5	24		17:48	OK	
	FA9397 US	>A1691	5	25		18:32	OK 5ul all STD's	
	FA9397 UR	>A1692	5	26		19:15	OK 5ul ↓	
	FA9399 U	>A1693	5	27			rr 1:5 1:10	
	FA9482U	>A1694	.25	28	1:20	20:42	OK FOR QV60308	
	FA9483U	>A1695	5	29		21:25	OK	
	FA9485U	>A1696	5	30			OK SURR OUT	
	FA9486U	>A1697	.5	31	1:10		rr STR	
	FA9395U	>A1698	.01	32	1:500	23:36	OK	
	QC60311U	>A1699	5	19			OK pos BLANK	
	QC60311U	>A1700	5	20			OK ↓	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 28 Page 2 of 2

Date 6/20/90 Instr. A

A-Type
Tune file
Seq. file
Method file See Pg #1
ID file
CB file
Analyst K Kopp
Reviewed by/Date
Batch #'s QV60311

Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg #1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments
	QC60311	>A1701	5	31			ok gas blank
	PBFB	>A1702	1ul	—		09:11	OK 127-26
	QC60311VS	>A1703	5ml	17	(QCAL)	09:34	OK 5ul all STD's
	QC60311V2	>A1704	↓	18			NG
	QC60311V2	>A1705	5ml	24			NG
	QC60311V2	>A1706	5ml	24		12:24	OK
R	FA9399V2	>A1707	0.5ml	18	1:10	13:08	OK
R	FA9485V2	>A1708	5ml	19		13:52	OK contains >A1696
	FA9486V2	>A1709		20		14:36	OK
	FA9280V2	>A1710		21		15:20	OK
	FA9177V2	>A1711		22		16:04	OK rr ~~1:10~~ 1:5 KB 6/21/90
R	FA9177V2	>A1712	1.0ml	18		17:08	OK
	FA9796V2	>A1713	5ml	19		17:51	OK KB 6/21/90 matrix rr str
GT 6/20/90	~~FA9796~~ FA9169 V2	>A1714	0.05ml	20		18:35	OK
	FA9795V2	>A1715	5ml	21			NG rr str
	FA9755V2	>A1716		22			rr str
	FA9757V2	>A1717		23			rr str
	P-BFB	>A1718	1ul	—			Not Run

R : redo , P : Aroclor search , + : Plus search

OHM Corporation

ETC Environmental Testing and Certification Corp.

Technical Report

for

GOLDER ASSOCIATES

3737 CHAMBLEE-TUCKER ROAD

ATLANTA, GA 30341

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9486	GOLDER ASSOCIATES	490	XP-1	900612	1814	

Richard P. Albert

Vice President, General Manager

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COMMENTS

ETC

COMMENTS FOR SPECIFIC ANALYSES

VOLATILE FRACTION:

FA9486

Criteria for Vinyl chloride was not met. However, the compound was not identified in these samples.

TABULATED ANALYTICAL RESULTS

ETC

JUN 26, 1990
QV60311

TABLE 1: QUANTITATIVE RESULTS and QUALITY ASSURANCE DATA

Volatile Compounds - GC/MS Analysis Data (QR01)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9486	GOLDER ASSOCIATES	490	XP-1	900612	1814	0

NPDES Number	Compound	Results		QC Replicate		QC Blank and Spiked Blank			QC Matrix Spike		
		Sample Concen. ug/l	MDL ug/l	First ug/l	Second ug/l	Blank Data ug/l	Concen. Added ug/l	% Recov	Unspiked Sample ug/l	Concen Added ug/l	% Recov
15V	1,2-Dichloroethane	ND	2.8	65.2	65.1	ND	50.0	151	ND	50.0	130

Acrolein and Acrylonitrile values are screen only.

All zero and variable recoveries have been manually verified.

ETC

JUN 26, 1990

TABLE 2: METHOD PERFORMANCE DATA
Surrogate Recovery Water - GC/MS Data (QR20)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9486	GOLDER ASSOCIATES	490	XP-1	900612	1814	0

Compound	Amount added ug	% Recovery	IFB EPA Control Limits Lower	IFB EPA Control Limits Upper
VOLATILE FRACTION (GC/MS)				
Toluene-D8	.250	98	88	110
p-Bromofluorobenzene	.250	102	86	115
1,2-Dichloroethane-D4	.250	95	76	114
ACID FRACTION (GC/MS)				
Phenol-D5	-	-	10	94
2-Fluorophenol	-	-	21	100
2,4,6-Tribromophenol	-	-	10	123
BASE/NEUTRAL FRACTION (GC/MS)				
Nitrobenzene-D5	-	-	35	114
2-Fluorobiphenyl	-	-	43	116
Terphenyl-D14	-	-	33	141
PESTICIDE/PCB FRACTION (GC)				
Dibutylchlorendate	-	-	24**	154**
2,4,5,6-Tetrachloro-m-xylene	-	-	46	185
METHOD 601				
Bromochloromethane	-	-	82	124
METHOD 602				
a,a,a-Trifluorotoluene	-	-	80	120

** Advisory Limits Only

GC/MS QUALITY CONTROL DATA

Instrument Performance Check

- Tuning and Mass Calibration

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >A1683 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B A BFB Injection Time: 1101

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.5
75	30.0 - 60.0% of mass 95	51.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	72.3
175	5.0 - 9.0% of mass 174	5.5 (7.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	69.9 (96.8)1
177	5.0 - 9.0% of mass 176	5.3 (7.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60311VS	>A1684	06/19/90	1133
02		QC60311VS	>A1685	06/19/90	1217
03		QC60311V	>A1688	06/19/90	1557
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

1/87 Rev.

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >A1689 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1713

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) Pack.

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.2
75	30.0 - 60.0% of mass 95	52.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	72.5
175	5.0 - 9.0% of mass 174	5.8 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	69.2 (95.5)1
177	5.0 - 9.0% of mass 176	5.4 (7.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		FA9397U	>A1690	06/19/90	1748
02		FA9397US	>A1691	06/19/90	1832
03		FA9397UR	>A1692	06/19/90	1915
04		FA9483U	>A1695	06/19/90	2125
05		FA9485U	>A1696	06/19/90	2209
06		FA9395U	>A1698	06/19/90	2336
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

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5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: FTC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >A1702 BFB Injection Date: 06/20/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0911

Matrix: (soil/water) Water Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.6
75	30.0 - 60.0% of mass 95	52.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	59.0
175	5.0 - 9.0% of mass 174	4.7 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	56.2 (95.3)1
177	5.0 - 9.0% of mass 176	4.4 (7.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		BC60311US	>A1703	06/20/90	0934
02		BC60311US	>A1706	06/20/90	1224
03		FA9399U2	>A1707	06/20/90	1308
04		~~FA9485U2~~	~~>A1708~~	~~06/20/90~~	~~1347~~
05		FA9486U2	>A1709	06/20/90	1436
06		FA9280U2	>A1710	06/20/90	1520
07		FA9177U2	>A1711	06/20/90	1604
08		FA9177U2	>A1712	06/20/90	1708
09		FA9169U2	>A1714	06/20/90	1835
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

CT 6/26/90

FORM V VOA

1/87 Rev.

CHAIN OF CUSTODY DOCUMENTATION

- Chain of Custody Forms
- Laboratory Chronicles
- Subcontract

ENVIRONMENTAL TESTING and CERTIFICATION

CHAIN OF CUSTODY FORM (CC1)

ORIGINAL

Seal No. 0172177 ETC Job # FA9486

Date Sealed 90/06/04 By: MC

Company: CHEMICAL WASTE MANAGEMENT Attn.: STEVE LONNEMAN

Facility/Site: Phone: (~~404~~ 419) 547 - 7791

Address: 3956 STATE ROUTE 412, VICKERY, OH 43464

SAMPLE IDENTIFICATION

Facility: -|Y|U| (Facility/Site Code) Potable Water (Optional Sample Point Descriptions)

Sample Point: |X|-|P|-|1| (Source Code (from below); Your Sample Point ID (left justify)) 9|0|0|6|1|2| (Start Date (YY/MM/DD)) |1|8|1|4| (Start Time (2400 hr. clock)) |0|0|0| (Elapsed Hours (composite))

Source Codes:
Well ..(W) Outfall .....(O) Bottom Sediment ....(B) Surface Impoundment ....(I) Leachate Collection Sys.....(C) Other Potable water (X)
Soil ...(S) River/Stream ..(R) Generation Point .....(G) Treatment Facility .....(T) Lake/Ocean .....(L) Specify

SHUTTLE CONTENTS

BOTTLE				ANALYSIS	SAMPLER		LAB
No	Type	Size	Preserv.		Filt. (Y/N)	Observations	Observations
2	VOA	40	HCL	VOLATILES	N		✓

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) LORI E. LOZIER Date: 6-11-90 Time: 1830
Signature: Seal #: 0172177 Intact: YES

2. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

3. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

4. Shuttle Sealed By: (print) LORI E. LOZIER Date: 6-13-90 Time: 1000
Signature: Seal #: 0172176 Intact: YES

LAB USE ONLY Opened By: Date: 6/14/90 Time: 10:15 Hrs
SHUTTLE # 401 TEMP. °C 6° SEAL # 172176 COND. intact

ETC

FIELD PARAMETER FORM (CC2)

Form 0002
Sample Management
12/89

ETC JOB # FA-1486

Sample Point [X] [P-1] (Source Code / Sample Point I.D.)

FIELD PROCEDURES

PURGE DATE (YY MM DD)	START PURGE (2400 Hr Clock)	ELAPSED HRS	WATER VOL. IN CASING (Gallons)	VOLUME PURGED (Gallons)
910612	1814	000	00000	00000

SAMPLING METHOD:

Sampler Type [X] A-Submersible Pump, B-ISCO, C-Bladder Pump, D-Dipper/Bottle, E-Bailer, F-Scoop/Shovel, X-Other Straight from valve (SPECIFY OTHER)

Sampler Material [ ] A-Teflon, B-Metal, C-PVC, D-Plastic, X-Other (SPECIFY OTHER)

Tubing Material [ ] A-Teflon, B-Tygon, C-Polyethylene, D-Silicon, X-Other (SPECIFY OTHER)

Sample Composited [Y/N] Procedure/Proportions

FIELD MEASUREMENTS

Well Elevation (ft/msl)

Depth to Ground water (ft)

Groundwater Elevation (ft msl)

Well Depth (ft)

Sample Depth (non-well) (ft)

	ph	(STD)		spec. cond.	um/cm at 25°C	(other parameter)	value	units
1st	7.22		1st	3600		H2O temp	16.8	°C.
2nd			2nd					
3rd			3rd					
4th			4th					

Sample Temp (°C)

Turbidity NTU

FIELD COMMENTS

Sample Appearance:

Weather Conditions: SUNNY, WINDY, 78°F

Other:

FILTERING: Use Chain of Custody (CC1) to indicate which bottles were filtered

Sampler: LORI E. LOZIER (Print) Employer: GOLDER ASSOCIATES

I certify that sampling procedures were in accordance with applicable EPA state and corporate protocols.

6-13-90 (Date) (Signature)

ORIGINAL

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 27 Page 1 of 2

Date 6/19/90 Instr. A

A-Type PP/UOA
Tune file APEI01
Seq. file AAA
Method file UOA A
ID file IA0240
CB file CA0240
Analyst
Reviewed by/Date

Batch #'s QV60311

Standard	Conc ppm	Lot No.	Lot Vol.
p-BFB	50	9171	1ul
INT STD & SURR	25	9435	10ul
CAL I	50	9528	2,5,10,15,2
CAL II	50	9529	
APB	50	9434	
METH METHACRYLONITR	50	9240	
XUOA	50	9505	
TCLP	50/500	9238	

Standards Updated
Date By

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments
	p-BFB	>A1683	1ul	—		11:01	OK 126 enh
	QC60311US	>A1684	5	17	(QCAL)	11:37	OK 5ul All STDS KB
	QC60311US	>A1685	5	18	(QCAL)	12:17	OK 6/20/90
	QC60311U	>A1686	5	19			~~neg~~ pos BLANK
	QC60311U	>A1687	5	21			~~neg~~ pos BLANK
	QC60311U	>A1688	5	22		15:57	OK BLANK
	p-BFB	>A1689	1ul	—		17:13	OK 123 -110
	FA9397U	>A1690	5	24		17:48	OK
	FA9397US	>A1691	5	25		18:32	OK 5ul all STD's
	FA9397UR	>A1692	5	26		19:15	OK 5ul
	FA9399U	>A1693	5	27			rr 1:10
	FA9482U	>A1694	.25	28	1:20	20:42	OK FOR QV60308
	FA9483U	>A1695	5	29		21:25	OK
	FA9485U	>A1696	5	30			OK SURR OUT
	FA9486U	>A1697	.5	31	1:10		rr str
	FA9395U	>A1698	.01	32	1:500	23:36	OK
	QC60311U	>A1699	5	19			OK pos BLANK
	QC60311U	>A1700	5	20			OK

R : redo , P : Aroclor search , + : Plus search

Date 6/20/90 Instr. A

A-Type
Tune file
Seq. file
Method file See Pg #1
ID file
CB file
Analyst K Roy
Reviewed by/Date
Batch #'s QV60311

Standard	Conc ppm	Lot No.	Lot Vol
See Pg #1			

Standards Updated
Date By

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments
	QC60311	>A1701	5	21			OK gas blank
	PBFB	>A1702	1ul	—		09:11	OK 127-26
	QC60311VS	>A1703	5ml	17	(QCW)	09:34	OK 5ul all STD's
	QC60311V2	>A1704		18			NG
	QC60311V2	>A1705	5ml	24			NG
	QC60311V2	>A1706	5ml	24		12:24	OK
R	FA9399V2	>A1707	0.5ml	18	1:10	13:08	OK
R	FA9485V2	>A1708	5ml	19		13:52	OK Contains >A1696
	FA9486V2	>A1709		20		14:36	OK
	FA9280V2	>A1710		21		15:20	OK
	FA9177V2	>A1711		22		16:04	OK rr ~~1:10~~ 1:5 KB 6/21/90
R	FA9177V2	>A1712	1.0ml	18		17:08	OK
	FA9796V2	>A1713	5ml	19		17:51	OK KB 6/21/90 matrix rr str
GT 6/20/90	~~FA9796~~ FA9169V2	>A1714	0.05ml	20		18:35	OK
	FA9795V2	>A1715	5ml	21			NG rr str
	FA9755V2	>A1716		22			rr str
	FA9757V2	>A1717		23			rr str
	P-BFB	>A1718	1ul	—			NOT RUN

R : redo , P : Aroclor search , + : Plus search

OHM Corporation

ETC Environmental Testing and Certification Corp.

Technical Report

for

GOLDER ASSOCIATES

3737 CHAMBLEE-TUCKER ROAD

ATLANTA, GA 30341

Chain of Custody Data Required for ETC Data Management Summary Reports						
FA9487	GOLDER ASSOCIATES	490	XFIELD BLNK 900612			
ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours

Richard P. Albert

Vice President, General Manager

This Technical Report is an INSITE℠ service generated by LODESTAR℠ Data Management Software.

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TABULATED ANALYTICAL RESULTS

ETC

JUN 26, 1990
QV60310

TABLE 1: QUANTITATIVE RESULTS and QUALITY ASSURANCE DATA

Volatile Compounds - GC/MS Analysis Data (QR01)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9491	GOLDER ASSOCIATES	490	SB-3-4B	900610	0850	0

NPDES Number	Compound	Results		QC Replicate		QC Blank and Spiked Blank			QC Matrix Spike		
		Sample Concen. ug/kg	MDL ug/kg	First ug/kg	Second ug/kg	Blank Data ug/kg	Concen Added ug/kg	% Recov	Unspiked Sample ug/kg	Concen Added ug/kg	% Recov
15V	1,2-Dichloroethane	ND	2.8	52.0	54.3	ND	50.0	108	ND	50.0	104

Acrolein and Acrylonitrile values are screen only.

All zero and variable recoveries have been manually verified.

ETC

JUN 26, 1990

TABLE 2: METHOD PERFORMANCE DATA
Surrogate Recovery Soil - GC/MS Data (QR20)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9491	GOLDER ASSOCIATES	490	SB-3-4B	900610	0850	0

Compound	Amount added ug	% Recovery	IFB EPA Control Limits	
			Lower	Upper
VOLATILE FRACTION (GC/MS)				
Toluene-D8	.250	107	81	117
p-Bromofluorobenzene	.250	90	74	121
1,2-Dichloroethane-D4	.250	104	70	121
ACID FRACTION (GC/MS)				
Phenol-D5	-	-	24	113
2-Fluorophenol	-	-	25	121
2,4,6-Tribromophenol	-	-	19	122
BASE/NEUTRAL FRACTION (GC/MS)				
Nitrobenzene-D5	-	-	23	120
2-Fluorobiphenyl	-	-	30	115
Terphenyl-D14	-	-	18	137
PESTICIDE/PCB FRACTION (GC)				
Dibutylchlorendate	-	-	20**	150**
2,4,5,6-Tetrachloro-m-xylene	-	-	34	160

** Advisory Limits Only

GC/MS QUALITY CONTROL DATA

Instrument Performance Check

- Tuning and Mass Calibration

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3356 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1008

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap.

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.5
75	30.0 - 60.0% of mass 95	54.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	67.7
175	5.0 - 9.0% of mass 174	4.4 (6.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	66.5 (98.2)1
177	5.0 - 9.0% of mass 176	4.2 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310US	>B3357	06/19/90	1049
02		QC60310US	>B3358	06/19/90	1137
03		QC60310U	>B3359	06/19/90	1224
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

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VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3360 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1359

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Pack

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.7
75	30.0 - 60.0% of mass 95	52.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	71.6
175	5.0 - 9.0% of mass 174	5.2 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.1 (99.4)1
177	5.0 - 9.0% of mass 176	5.9 (8.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		FA9488U	>B3361	06/19/90	1425
02		FA9488US	>B3362	06/19/90	1511
03		FA9488UR	>B3363	06/19/90	1557
04		FA9489U	>B3364	06/19/90	1644
05		FA9490U	>B3365	06/19/90	1731
06		FA9491U	>B3366	06/19/90	1817
07		FA9493U	>B3368	06/19/90	1950
08		FA9494U	>B3369	06/19/90	2038
09		FA9495U	>B3370	06/19/90	2124
10		FA9496U	>B3371	06/19/90	2211
11					
12					
13					
14					
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19					
20					
21					
22					

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VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3374 BFB Injection Date: 06/20/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0900

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	50.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	83.0
175	5.0 - 9.0% of mass 174	6.6 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.9 (96.3)1
177	5.0 - 9.0% of mass 176	6.7 (8.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310VS	>B3375	06/20/90	0936
02		QC60310V2	>B3376	06/20/90	1023
03		FA9492V2	>B3377	06/20/90	1118
04		FA9497V2	>B3378	06/20/90	1205
05		FA9586V2	>B3384	06/20/90	1646
06					
07					
08					
09					
10					
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14					
15					
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17					
18					
19					
20					
21					
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VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3407 BFB Injection Date: 06/22/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1438

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	51.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	87.6
175	5.0 - 9.0% of mass 174	6.0 (6.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	86.5 (98.7)1
177	5.0 - 9.0% of mass 176	7.4 (8.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310VS	>B3408	06/22/90	1510
02		QC60310V3	>B3409	06/22/90	1556
03		FA9570V3	>B3410	06/22/90	1727
04		FA9571V3	>B3411	06/22/90	1813
05		FA9572V3	>B3412	06/22/90	1859
06		FA9573V3	>B3413	06/22/90	1946
07		FA9574V3	>B3414	06/22/90	2032
08		FA9588V3	>B3416	06/22/90	2205
09		FA9589V3	>B3417	06/22/90	2252
10		FA9590V3	>B3418	06/22/90	2338
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22					

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FORM V VOA

CHAIN OF CUSTODY DOCUMENTATION

- Chain of Custody Forms
- Laboratory Chronicles
- Subcontract

ENVIRONMENTAL TESTING and CERTIFICATION

CHAIN OF CUSTODY FORM (CC1)

ORIGINAL

Seal No. 0172185 ETC Job # FA9491

Date Sealed 90-06-04 By: KKO

Company: CHEMICAL WASTE MANAGEMENT Attn.: STEVE LONNEMAN

Facility/Site: Phone: (419) 547-7791

Address: 3456 STATE ROUTE 412, VICKERY, OH 43464

SAMPLE IDENTIFICATION

Facility: 4 9 0 (Facility/Site Code) (Optional Sample Point Descriptions)

Sample Point: S-B-3, 4B (Source Code (from below); Your Sample Point ID (left justify)) 9 0 0 6 1 0 (Start Date (YY/MM/DD)) 0 8 5 0 (Start Time (2400 hr. clock)) 0 0 0 (Elapsed Hours (composite))

Source Codes:
Well ..(W) Outfall.....(O) Bottom Sediment....(B) Surface Impoundment....(I) Leachate Collection Sys.....(C) Other .....(X)
Soil ...(S) River/Stream..(R) Generation Point ....(G) Treatment Facility .....(T) Lake/Ocean .....(L) Specify

SHUTTLE CONTENTS

BOTTLE				ANALYSIS	SAMPLER		LAB
No	Type	Size	Preserv.		Filt. (Y/N)	Observations	Observations
1	glass	40ml	—	1,2 Dichloroethane	N		✓

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) LORI E. LOZIER Date: 6-9-90 Time: 1350
Signature: Seal #: 0172185 Intact: YES

2. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

3. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

4. Shuttle Sealed By: (print) LORI E. LOZIER Date: 6-13-90 Time: 1000
Signature: Seal #: 0172184 Intact: YES

LAB USE ONLY Opened By: R Dreffs Date: 6-14-90 Time: 11:00
SHUTTLE # 464 TEMP. °C F SEAL # 0172184 COND. intact

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 26 Page 1 of 4

Date 6/19/90 Instr. B

Type PP/VOA
Tune file APEI02
Seq. file BBB
Method file VOAB
ID file IB0258
CB file CB0258
Analyst [illegible]
Reviewed By/Date K. Berry 6/22/90

Batch #'s QV60310

Standard	Conc ppm	Lot No.	Lot Vol.
p-BFB	50	9171	1ul
INT STD - SURR	25	9435	10ul
CAL I	50	9528	2,5,10,15,20
CAL II	50	9529	↓

__ Standards Updated
Date ____ By ____

Tape # ____ Inj. __ ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	P
	p-BFB	>B3256	1ul	—		10:08	OK 124 ent	
	QV60310VS	>B3357	5	14		10:49	OK 5ul Cal I,II ↓	
	QV60310VS	>B3358	5	15	QCAL	11:37	OK	
	QV60310V	>B3359	5	16		12:24	OK BLANK	
	p-BFB	>B3360	1ul	—		13:59	OK 119 ent	
	FA9488V	>B3361	5	13		14:25	OK	
	FA9488VS	>B3362	5	14		15:11	OK 5ul Cal I,II ↓	
	FA9488VR	>B3363	5	15		15:57	OK	
	FA9489V	>B3364	5	16		16:44	OK	
	FA9490V	>B3365	5	1		17:31	OK	
	FA9491V	>B3366	5	2		18:17	OK	
	FA9492V	>B3367	5	3			SURR OUT	
	FA9493V	>B3368	5	4		19:50	OK	
	FA9494V	>B3369	5	5		20:38	OK	
	FA9495V	>B3370	5	6		21:24	OK	
	FA9496V	>B3371	5	7		22:11	OK	
	FA9497V	>B3372	5	8			SURR OUT	
	QC60310V	>B3373	5	9			NO POS BLANK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE

Date 6/20/90 Instr. B

A-Type PP1104
le file AREI02
Seq. file
Method file VOAB
ID file IB0258
CB file CB0258
Analyst Kilmon
Reviewed by/Date K Bu, 6/27/94

Batch #'s QV 60310

Standard	Conc ppm	Lot No.	Lot Vol.
See Page #1			

__ Standards Updated
Date ____ By ____

Tape # ____ Inj. __ ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	P-BFB	>B3374	1ul	–		09:00	OK 119 (ENH, -1:0)	
	QC60310VS	>B3375	5ml	10	(QCAL)	09:36	OK 5ul CAL I+II	
	QC60310V2	>B3376	↓	11		10:23	OK	
R	FA7492V2	>B3377	5gm	1		11:18	OK	
R	FA9497V2	>B3378	↓	2		12:05	OK	
	FA9570V2	>B3379	5gm	3			SURR OUT	
	FA9571V2	>B3380		4			SURR OUT	
	FA9572V2	>B3381		5			SURR OUT	
	FA9573V2	>B3382		6			SURR OUT	
	FA9574V2	>B3383		7			Leaked?	
	FA9586V2	>B3384		8		16:46	OK	
	FA9587V2	>B3385		11			Leaked?	
	FA9588V2	>B3386		12				
	FA9589V2	>B3387		13				
	FA9590V2	>B3388		14			No IS SRC	
	QC60310V2	>B3389	5ml	9		20:39	OK	
	P-BFB	>B3390	1ul	–		10:26	OK 116 (ENH) -24	
	QC60310VS	>B3391	5ml	1	(QCAL)	10:55	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 20

Date 6/21/96 Instr. B

a-Type
T file
Seq. file Pg#1
Method file
ID file
CB file
Analyst K. Brown
Reviewed by/Date K. Brown 6/23/96
Batch #'s QV60310

__ Standards Updated
Date By

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg#1			

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	QC60310V3	>B3392	5ml	2			NG	
	QC60310V3	>B3393	5ml	2			NG	
	QC60310V3	>B3394	5ml	2			NG	
	QC60310V3	>B3395	5ml	16			NG	
	QC60310V3	>B3396	5ml	1			NG	
	QC60310V3	>B3397	5ml	2			NG	
R	FA9570V3	>B3398	5gm	3				
R	FA9571V3	>B3399		4				
R	FA9572V3	>B3400		5				
R	FA9573V3	>B3401		6				
R	FA9574V3	>B3402		7				
R	FA9587V3	>B3403		8				
R	FA9588V3	>B3404		9				
R	FA9589V3	>B3405		10				
R	FA9590V3	>B3406		11				
	P-BFB	>B3407	1ul	—		14:38	OK 1/3 (ENH, 1:2)	
	QC60310V3	>B3408	5ml	1	(Qcal)		OK 5ul CALIB I&II	
	QC60310V3	>B3409	5ml	2		15:56	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 29 Page 4 of 4

Date 6/21/90 Instr. B

Type
Tune file
Seq. file See Pg #1
Method file
ID file
CB file
Analyst K.Boy
Reviewed by/Date K.Boy 6/25/90
Batch #'s QV60310

Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg #1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
R	FA9570V3	>B3410	5gm	3		17:27	OK	
R	FA9571V3	>B3411		4		18:13	OK	
R	FA9572V3	>B3412		5		18:59	OK matrix	
R	FA9573V3	>B3413		6		19:46	OK	
R	FA9574V3	>B3414		7		20:32	OK	
R	FA9587V3	>B3415		8			rr 1:5 or str	
R	FA9588V3	>B3416		9		22:05	OK	
R	FA9589V3	>B3417		10		22:52	OK	
R	FA9590V3	>B3418		11		23:38	OK	

R : redo , P : Aroclor search , + : Plus search

OHM Corporation

ETC Environmental Testing and Certification Corp.

Technical Report

for

GOLDER ASSOCIATES

3737 CHAMBLEE-TUCKER ROAD

ATLANTA, GA 30341

Chain of Custody Data Required for ETC Data Management Summary Reports						
FA9492	GOLDER ASSOCIATES	490	SB-3-5B	900610	0850	
ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours

Richard P. Albert

Vice President, General Manager

This Technical Report is an INSITE℠ service generated by LODESTAR℠ Data Management Software.

284 Raritan Center Parkway ■ CN 7808 ■ Edison, New Jersey 08818-7808 ■ 201-225-5600

TABULATED ANALYTICAL RESULTS

ETC

JUN 26, 1990
QV60310

TABLE 1: QUANTITATIVE RESULTS and QUALITY ASSURANCE DATA

Volatile Compounds - GC/MS Analysis Data (QR01)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9492	GOLDER ASSOCIATES	490	SB-3-5B	900610	0850	0

NPDES Number	Compound	Results		QC Replicate		QC Blank and Spiked Blank			QC Matrix Spike		
		Sample Concen. ug/kg	MDL ug/kg	First ug/kg	Second ug/kg	Blank Data ug/kg	Concen. Added ug/kg	% Recov	Unspiked Sample ug/kg	Concen. Added ug/kg	% Recov
15V	1,2-Dichloroethane	ND	2.8	52.0	54.3	ND	50.0	108	ND	50.0	104

Acrolein and Acrylonitrile values are screen only.

All zero and variable recoveries have been manually verified.

ETC

JUN 26, 1990

TABLE 2: METHOD PERFORMANCE DATA
Surrogate Recovery Soil - GC/MS Data (QR20)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9492	GOLDER ASSOCIATES	490	SB-3-5B	900610	0850	0

Compound	Amount added ug	% Recovery	IFB EPA Control Limits	
			Lower	Upper
VOLATILE FRACTION (GC/MS)				
Toluene-D8	.250	110	81	117
p-Bromofluorobenzene	.250	89	74	121
1,2-Dichloroethane-D4	.250	100	70	121
ACID FRACTION (GC/MS)				
Phenol-D5	-	-	24	113
2-Fluorophenol	-	-	25	121
2,4,6-Tribromophenol	-	-	19	122
BASE/NEUTRAL FRACTION (GC/MS)				
Nitrobenzene-D5	-	-	23	120
2-Fluorobiphenyl	-	-	30	115
Terphenyl-D14	-	-	18	137
PESTICIDE/PCB FRACTION (GC)				
Dibutylchlorendate	-	-	20**	150**
2,4,5,6-Tetrachloro-m-xylene	-	-	34	160

** Advisory Limits Only

GC/MS QUALITY CONTROL DATA

Instrument Performance Check

- Tuning and Mass Calibration

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3356 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1008

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Pack.

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.5
75	30.0 - 60.0% of mass 95	54.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	67.7
175	5.0 - 9.0% of mass 174	4.4 (6.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	66.5 (98.2)1
177	5.0 - 9.0% of mass 176	4.2 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310VS	>B3357	06/19/90	1049
02		QC60310VS	>B3358	06/19/90	1137
03		QC60310V	>B3359	06/19/90	1224
04					
05					
06					
07					
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VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3360 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1359

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Pack

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.7
75	30.0 - 60.0% of mass 95	52.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	71.6
175	5.0 - 9.0% of mass 174	5.2 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.1 (99.4)1
177	5.0 - 9.0% of mass 176	5.9 (8.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		FA9488U	>B3361	06/19/90	1425
02		FA9488US	>B3362	06/19/90	1511
03		FA9488UR	>B3363	06/19/90	1557
04		FA9489U	>B3364	06/19/90	1644
05		FA9490U	>B3365	06/19/90	1731
06		FA9491U	>B3366	06/19/90	1817
07		FA9493U	>B3368	06/19/90	1950
08		FA9494U	>B3369	06/19/90	2038
09		FA9495U	>B3370	06/19/90	2124
10		FA9496U	>B3371	06/19/90	2211
11					
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17					
18					
19					
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5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3374 BFB Injection Date: 06/20/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0900

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Pack

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	50.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	83.0
175	5.0 - 9.0% of mass 174	6.6 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.9 (96.3)1
177	5.0 - 9.0% of mass 176	6.7 (8.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310US	>B3375	06/20/90	0936
02		QC60310U2	>B3376	06/20/90	1023
03		FA9492U2	>B3377	06/20/90	1118
04		FA9497U2	>B3378	06/20/90	1205
05		FA9586U2	>B3384	06/20/90	1646
06					
07					
08					
09					
10					
11					
12					
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FORM V VOA

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VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

ab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3407 BFB Injection Date: 06/22/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1438

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	51.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	87.6
175	5.0 - 9.0% of mass 174	6.0 (6.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	86.5 (98.7)1
177	5.0 - 9.0% of mass 176	7.4 (8.6)2

1-Value is % mass 174 2-Value is % mass 176

HIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310US	>B3408	06/22/90	1510
02		QC60310U3	>B3409	06/22/90	1556
03		FA9570U3	>B3410	06/22/90	1727
04		FA9571U3	>B3411	06/22/90	1813
05		FA9572U3	>B3412	06/22/90	1859
06		FA9573U3	>B3413	06/22/90	1946
07		FA9574U3	>B3414	06/22/90	2032
08		FA9588U3	>B3416	06/22/90	2205
09		FA9589U3	>B3417	06/22/90	2252
10		FA9590U3	>B3418	06/22/90	2338
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

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CHAIN OF CUSTODY DOCUMENTATION

- Chain of Custody Forms
- Laboratory Chronicles
- Subcontract

ENVIRONMENTAL TESTING and CERTIFICATION

CHAIN OF CUSTODY FORM (CC1)

ORIGINAL

Seal No. 0172185 ETC Job # FA9492

Date Sealed 90-06-04 By: KO

Company: CHEMICAL WASTE MANAGEMENT Attn.: STEVE LONNEMAN

Facility/Site: Phone: (419) 547-7791

Address: 3956 STATE ROUTE 412, VICKERY OH 43464

SAMPLE IDENTIFICATION

Facility: 4910 (Facility/Site Code) (Optional Sample Point Descriptions)

Sample Point: S-B-3, 5B (Source Code (from below); Your Sample Point ID (left justify)) 90061 10 (Start Date (YY/MM/DD)) 0850 (Start Time (2400 hr. clock)) 000 (Elapsed Hours (composite))

Source Codes:
Well ..(W) Outfall.....(O) Bottom Sediment ....(B) Surface Impoundment....(I) Leachate Collection Sys.... (C) Other .....(X)
Soil ...(S) River/Stream..(R) Generation Point ....(G) Treatment Facility .....(T) Lake/Ocean .....(L) Specify

SHUTTLE CONTENTS

BOTTLE No	Type	Size	Preserv.	ANALYSIS	SAMPLER Filt. (Y/N)	SAMPLER Observations	LAB Observations
1	glass	40ml	—	1,2 - Dichloroethane	N		✓

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) LORI E. LOZIER Date: 6-9-90 Time: 1350
Signature: Seal #: 0172185 Intact: YES

2. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

3. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

4. Shuttle Sealed By: (print) LORI E. LOZIER Date: 6-13-90 Time: 1000
Signature: Seal #: 0172174 Intact: YES.

LAB USE ONLY Opened By: R Doerfler Date: 6-14-90 Time: 11:00
SHUTTLE # 464 TEMP. °C 8 SEAL # 0172174 COND. intact

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 26 Page 1 of 4

Date 6/19/90 Instr. B

A-Type PP/VOA
...e file APEI02
...q. file BBB ,
Method file VOAB
ID file IB0258
CB file CB0258
Analyst [illegible]
Reviewed By/Date K. [illegible] 6/25/90

Batch #'s QV60310

Standard	Conc ppm	Lot No.	Lot Vol.
p-BFB	50	9171	1ul
INT STD - SUR	25	9435	10ul
CAL I	50	9528	2,5,10,15,20
CAL II	50	9529	↓

__ Standards Updated
Date ____ By ____

Tape # ____ Inj. ___ ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	P
	p-BFB	>B3356	1ul	—		10:08	OK 124 ent	
	QV60310US	>B3357	5	14		10:49	OK 5ul Cal I, II ↓	
	QV60310US	>B3358	5	15	QCAL	11:37	OK	
	QV60310V	>B3359	5	16		12:24	OK BLANK	
	p-BFB	>B3360	1ul	—		13:59	OK 119 ent	
	FA9488V	>B3361	5	13		14:25	OK	
	FA9488US	>B3362	5	14		15:11	OK 5ul Cal I, II ↓	
	FA9488VR	>B3363	5	15		15:57	OK	
	FA9489V	>B3364	5	16		16:44	OK	
	FA9490V	>B3365	5	1		17:31	OK	
	FA9491V	>B3366	5	2		18:17	OK	
	FA9492V	>B3367	5	3			SUR OUT	
	FA9493V	>B3368	5	4		19:50	OK	
	FA9494V	>B3369	5	5		20:38	OK	
	FA9495V	>B3370	5	6		21:24	OK	
	FA9496V	>B3371	5	7		22:11	OK	
	FA9497V	>B3372	5	8			SUR OUT	
	QC60310V	>B3373	5	9			NON POS BLANK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE

Date 6/20/90 Instr. B

A-Type PP1104
ne file APEI02
q. file
Method file VKB
ID file IB0258
CB file CB0258
Analyst K. Bergm
Reviewed by/Date K Bergm, 6/25/94

Batch #'s QV 60310

Standard	Conc ppm	Lot No.	Lot Vol.
See Page 1			

__ Standards Updated
Date ____ By ____

Tape # ____ Inj. __ ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	P
	P-BFB	>B3374	1ul	–		09:00	OK 1/9 (ENH -1:0)	
	QC60310VS	>B3375	5ul	10	(QCAL)	09:36	OK 5ul CAL I+II	
	QC60310V2	>B3376	↓	11		10:23	OK	
(+)	FA7492V2	>B3377	5ml	1		11:18	OK	
(+)	FA7497V2	>B3378	↓	2		12:05	OK	
	FA9570V2	>B3379	5ml	3			SURR OUT	
	FA9571V2	>B3380		4			SURR OUT	
	FA9572V2	>B3381		5			SURR OUT	
	FA9573V2	>B3382		6			SURR OUT	
	FA9574V2	>B3383		7			Leaked?	
	FA9586V2	>B3384		8		16:46	OK	
	FA9587V2	>B3385		11			Leaked?	
	FA9588V2	>B3386		12			↓	
	FA9589V2	>B3387		13				
	FA9590V2	>B3388		14			No ir sir	
	QC60310V2	>B3389	5ml	9		20:39	OK	
	P-BFB	>B3390	1ul	–		10:26	OK 1/6 (ENH) -24	
	QC60310VS	>B3391	5ml	1	(QCAL)	10:55	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS DEPT. 20

Date 6/21/96 Instr. B

Type
file
Seq. file Pg#1
Method file See
ID file
CB file
Analyst K. Brown
Reviewed by/Date K. Brown 6/23/96

Batch #'s QV60310

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg#1			

Standards Updated
Date By

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	QC60310V3	>B3392	5ml	2			NG	
	QC60310V3	>B3393	5ml	2			NG	
	QC60310V3	>B3394	5ml	2			NG	
	QC60310V3	>B3395	5ml	16			NG	
	QC60310V3	>B3396	5ml	1			NG	
	QC60310V3	>B3397	5ml	2			NG	
R	FA9570V3	>B3398	5gm	3				
R	FA9571V3	>B3399		4				
R	FA9572V3	>B3400		5				
R	FA9573V3	>B3401		6				
R	FA9574V3	>B3402		7				
R	FA9587V3	>B3403		8				
R	FA9588V3	>B3404		9				
R	FA9589V3	>B3405		10				
R	FA9590V3	>B3406		11				
	P-BFB	>B3407	1ul	—		14:38	OK 1/3 (ENH, 1:2)	
	QC60310V3	>B3408	5ml	1	(QCal)		OK 5ul calIB IAF	
	QC60310V3	>B3409	5ml	2		15:56	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 29 Page 4 of 4

Date 6/21/90 Instr. B

Tune file
Tu file
Seq. file , Pg #1
Method file See
ID file
CB file
Analyst K.Boyr
Reviewed by/Date K.Boyr 6/25/90
Batch #'s QV60310

Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg #1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
R	FA9570V3	>B3410	5gm	3		17:27	OK	
R	FA9571V3	>B3411		4		18:13	OK	
	FA9572V3	>B3412		5		18:59	OK matrix	
R	FA9573V3	>B3413		6		19:46	OK	
R	FA9574V3	>B3414		7		20:32	OK	
R	FA9587V3	>B3415		8			rr 1:5 or str	
R	FA9588V3	>B3416		9		22:05	OK	
R	FA9589V3	>B3417		10		22:52	OK	
R	FA9590V3	>B3418		11		23:38	OK	

R : redo , P : Aroclor search , + : Plus search

OHM Corporation

ETC Environmental Testing and Certification Corp.

Technical Report

for

GOLDER ASSOCIATES

3737 CHAMBLEE-TUCKER ROAD

ATLANTA, GA 30341

Chain of Custody Data Required for ETC Data Management Summary Reports						
FA9493	GOLDER ASSOCIATES	490	SB-3-7A	900610	0850	
ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours

Richard P. Albert

Vice President, General Manager

This Technical Report is an INSITE℠ service generated by LODESTAR℠ Data Management Software.

284 Raritan Center Parkway ■ CN 7808 ■ Edison, New Jersey 08818-7808 ■ 201-225-5600

TABULATED ANALYTICAL RESULTS

ETC

JUN 26, 1990
QV60310

TABLE 1: QUANTITATIVE RESULTS and QUALITY ASSURANCE DATA

Volatile Compounds - GC/MS Analysis Data (QR01)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9493	GOLDER ASSOCIATES	490	SB-3-7A	900610	0850	0

NPDES Number	Compound	Results		QC Replicate		QC Blank and Spiked Blank			QC Matrix Spike		
		Sample Concen. ug/kg	MDL ug/kg	First ug/kg	Second ug/kg	Blank Data ug/kg	Concen. Added ug/kg	% Recov	Unspiked Sample ug/kg	Concen. Added ug/kg	% Recov
15V	1,2-Dichloroethane	ND	2.8	52.0	54.3	ND	50.0	108	ND	50.0	104

Acrolein and Acrylonitrile values are screen only.

All zero and variable recoveries have been manually verified.

ETC

JUN 26, 1990

TABLE 2: METHOD PERFORMANCE DATA
Surrogate Recovery Soil - GC/MS Data (QR20)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9493	GOLDER ASSOCIATES	490	SB-3-7A	900610	0850	0

Compound	Amount added ug	% Recovery	IFB EPA Control Limits	
			Lower	Upper
VOLATILE FRACTION (GC/MS)				
Toluene-D8	.250	106	81	117
p-Bromofluorobenzene	.250	93	74	121
1,2-Dichloroethane-D4	.250	102	70	121
ACID FRACTION (GC/MS)				
Phenol-D5	-	-	24	113
2-Fluorophenol	-	-	25	121
2,4,6-Tribromophenol	-	-	19	122
BASE/NEUTRAL FRACTION (GC/MS)				
Nitrobenzene-D5	-	-	23	120
2-Fluorobiphenyl	-	-	30	115
Terphenyl-D14	-	-	18	137
PESTICIDE/PCB FRACTION (GC)				
Dibutylchlorendate	-	-	20**	150**
2,4,5,6-Tetrachloro-m-xylene	-	-	34	160

** Advisory Limits Only

GC/MS QUALITY CONTROL DATA

Instrument Performance Check

- Tuning and Mass Calibration

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3356 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1008

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap.

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.5
75	30.0 - 60.0% of mass 95	54.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	67.7
175	5.0 - 9.0% of mass 174	4.4 (6.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	66.5 (98.2)1
177	5.0 - 9.0% of mass 176	4.2 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310US	>B3357	06/19/90	1049
02		QC60310US	>B3358	06/19/90	1137
03		QC60310U	>B3359	06/19/90	1224
04					
05					
06					
07					
08					
09					
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19					
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21					
22					

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5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3360 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1359

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.7
75	30.0 - 60.0% of mass 95	52.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	71.6
175	5.0 - 9.0% of mass 174	5.2 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.1 (99.4)1
177	5.0 - 9.0% of mass 176	5.9 (8.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		FA9488U	>B3361	06/19/90	1425
02		FA9488US	>B3362	06/19/90	1511
03		FA9488UR	>B3363	06/19/90	1557
04		FA9489U	>B3364	06/19/90	1644
05		FA9490U	>B3365	06/19/90	1731
06		FA9491U	>B3366	06/19/90	1817
07		FA9493U	>B3368	06/19/90	1950
08		FA9494U	>B3369	06/19/90	2038
09		FA9495U	>B3370	06/19/90	2124
10		FA9496U	>B3371	06/19/90	2211
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3374 BFB Injection Date: 06/20/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0900

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	50.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	83.0
175	5.0 - 9.0% of mass 174	6.6 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.9 (96.3)1
177	5.0 - 9.0% of mass 176	6.7 (8.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310US	>B3375	06/20/90	0936
02		QC60310U2	>B3376	06/20/90	1023
03		FA9492U2	>B3377	06/20/90	1118
04		FA9497U2	>B3378	06/20/90	1205
05		FA9586U2	>B3384	06/20/90	1646
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

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VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3407 BFB Injection Date: 06/22/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1438

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Pack

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	51.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	87.6
175	5.0 - 9.0% of mass 174	6.0 (6.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	86.5 (98.7)1
177	5.0 - 9.0% of mass 176	7.4 (8.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310VS	>B3408	06/22/90	1510
02		QC60310V3	>B3409	06/22/90	1556
03		FA9570V3	>B3410	06/22/90	1727
04		FA9571V3	>B3411	06/22/90	1813
05		FA9572V3	>B3412	06/22/90	1859
06		FA9573V3	>B3413	06/22/90	1946
07		FA9574V3	>B3414	06/22/90	2032
08		FA9588V3	>B3416	06/22/90	2205
09		FA9589V3	>B3417	06/22/90	2252
10		FA9590V3	>B3418	06/22/90	2338
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

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CHAIN OF CUSTODY DOCUMENTATION

- Chain of Custody Forms
- Laboratory Chronicles
- Subcontract

ENVIRONMENTAL TESTING and CERTIFICATION

CHAIN OF CUSTODY FORM (CC1)

ORIGINAL

Seal No. 0172185 ETC Job # FA9493

Date Sealed 90-06-04 By: KO

Company: Chemical Waste Management Attn.: Steve Lonneman

Facility/Site: Phone: (419) 547-7791

Address: 3956 State Route 412, Vickery, Ohio 43464

SAMPLE IDENTIFICATION

Facility: 4 9 0 (Facility/Site Code) (Optional Sample Point Descriptions)

Sample Point: S - B - 3 7 4 (Source Code (from below); Your Sample Point ID (left justify)) 9 0 0 6 1 0 (Start Date (YY/MM/DD)) 0 8 5 0 (Start Time (2400 hr. clock)) 0 0 0 (Elapsed Hours (composite))

Source Codes:
Well ..(W) Outfall.....(O) Bottom Sediment....(B) Surface Impoundment....(I) Leachate Collection Sys.....(C) Other .....(X)
Soil ...(S) River/Stream..(R) Generation Point ....(G) Treatment Facility .....(T) Lake/Ocean .....(L) Specify

SHUTTLE CONTENTS

BOTTLE				ANALYSIS	SAMPLER		LAB
No	Type	Size	Preserv.		Filt. (Y/N)	Observations	Observations
1	Glass	40ml	—	1,2 - Dichloroethane	N		✓

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) LORI E. LOZIER Date: 6-9-90 Time: 1350
Signature: Seal #: 0172185 Intact: YES

2. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

3. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

4. Shuttle Sealed By: (print) LORI E LOZIER Date: 6-13-90 Time: 1400
Signature: Seal #: 0172184 Intact: YES

LAB USE ONLY Opened By: H. Porelpo Date: 6-14-90 Time: 11:00
SHUTTLE # 464 TEMP. °C 8 SEAL # 0172184 COND. Intact

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 26 Page 1 of 4.

Date 6/19/90 Instr. B

Type PP/VOA
Tune file APEI02
Seq. file BBB ,
Method file VOAB
ID file IB0258
CB file CB0258
Analyst [illegible]
Reviewed By/Date K. Bray 6/25/90

Batch #'s QV60310

Standard	Conc ppm	Lot No.	Lot Vol.
p-BFB	50	9171	1ul
INT STD - SUPR	25	9435	10ul
CAL I	50	9528	2,5,10,15,20
CAL II	50	9529	↓

Standards Updated
Date By

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	P
	p-BFB	>B3356	1ul	—		10:08	OK 124 ent	
	QV60310VS	>B3357	5	14		10:49	OK Std Cal I,II ↓	
	QV60310VS	>B3358	5	15	QCAL	11:37	OK	
	QV60310V	>B3359	5	16		12:24	OK BLANK	
	p-BFB	>B3360	1ul	—		13:59	OK 119 ent	
	FA9488V	>B3361	5	13		14:25	OK	
	FA9488VS	>B3362	5	14		15:11	OK Std Cal I,II ↓	
	FA9488VR	>B3363	5	15		15:57	OK	
	FA9489V	>B3364	5	16		16:44	OK	
	FA9490V	>B3365	5	1		17:31	OK	
	FA9491V	>B3366	5	2		18:17	OK	
	FA9492V	>B3367	5	3			SUPR OUT	
	FA9493V	>B3368	5	4		19:50	OK	
	FA9494V	>B3369	5	5		20:38	OK	
	FA9495V	>B3370	5	6		21:24	OK	
	FA9496V	>B3371	5	7		22:11	OK	
	FA9497V	>B3372	5	8			SUPR OUT	
	QC60310V	>B3373	5	9			NO POS BLANK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE

Date 6/20/90 Instr. G

P Type PP1104
: file APEI02
Seq. file
Method file VOAB
ID file IB0258
CB file CB0258
Analyst K. Brown
Reviewed by/Date K. Brown 6/25/90
Batch #'s QV 60310

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg #1			

__ Standards Updated
Date ____ By ____

Tape # ____ Inj. __ ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	P-BFB	>B3374	1ul	–		09:00	OK 119 (ENH, -1:10)	
	QC60310VS	>B3375	5ul	10	1(QCAL)	09:36	OK 5ul CAL I+II	
	QC60310V2	>B3376	↓	11		10:23	OK	
	FA7492V2	>B3377	5ml	1		11:18	OK	
	FA7497V2	>B3378	↓	2		12:05	OK	
	FA9570V2	>B3379	5ml	3			SURR OUT	
	FA9571V2	>B3380		4			SURR OUT	
	FA9572V2	>B3381		5			SURR OUT	
	FA9573V2	>B3382		6			SURR OUT	
	FA9574V2	>B3383		7			Leaked?	
	FA9586V2	>B3384		8		16:46	OK	
	FA9587V2	>B3385		11			Leaked?	
	FA9588V2	>B3386		12			↓	
	FA9589V2	>B3387		13				
	FA9590V2	>B3388		14			No IS	
	QC60310V2	>B3389	5ml	9		20:39	OK	
	P-BFB	>B3390	1ul	–		10:26	OK 116 (ENH) -24	
	QC60310VS	>B3391	5ml	1	1(QCAL)	10:55	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 20

Date 6/21/96 Instr. B

Type
Tune file
Seq. file Pg#1
Method file
ID file See
CB file
Analyst K. Brown
Reviewed by/Date K. Brown 6/23/96
Batch #'s QV60310

Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg#1			

IR	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	QC60310V3	>B3392	5ml	2			NG	
	QC60310V3	>B3393	5ml	2			NG	
	QC60310V3	>B3394	5ml	2			NG	
	QC60310V3	>B3395	5ml	16			NG	
	QC60310V3	>B3396	5ml	1			NG	
	QC60310V3	>B3397	5ml	2			NG	
R	FA9570V3	>B3398	5gm	3				
R	FA9571V3	>B3399		4				
R	FA9572V3	>B3400		5				
R	FA9573V3	>B3401		6				
R	FA9574V3	>B3402		7				
R	FA9587V3	>B3403		8				
R	FA9588V3	>B3404		9				
R	FA9589V3	>B3405		10				
R	FA9590V3	>B3406		11				
	P-BFB	>B3407	1ul	—		14:38	OK 1/3 (EN H, 1:2)	
	QC60310V5	>B3408	5ml	1	(Qcal)		OK 5ul cal IB I+II	
	QC60310V3	>B3409	5ml	2		15:56	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 29 Page 4 of 4

Date 6/21/90 Instr. B

Type

Tune file

Seq. file See Pg #1

Method file

ID file

CB file

Analyst K.Boyle

Reviewed by/Date K Boyle 6/25/90

Batch #'s QV60310

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg #1			

__ Standards Updated

Date By

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
R	FA9570V3	>B3410	5gm	3		17:27	OK	
R	FA9571V3	>B3411		4		18:13	OK	
R	FA9572V3	>B3412		5		18:59	OK matrix	
R	FA9573V3	>B3413		6		19:46	OK	
R	FA9574V3	>B3414		7		20:32	OK	
R	FA9587V3	>B3415		8			rr 1:5 or str	
R	FA9588V3	>B3416		9		22:05	OK	
R	FA9589V3	>B3417		10		22:52	OK	
R	FA9590V3	>B3418		11		23:38	OK	

R : redo , P : Aroclor search , + : Plus search

OHM Corporation

ETC Environmental Testing and Certification Corp.

Technical Report

for

GOLDER ASSOCIATES

3737 CHAMBLEE-TUCKER ROAD

ATLANTA, GA 30341

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9494	GOLDER ASSOCIATES	490	SB-4-3B	900610	1315	

Richard P. Albert

Vice President, General Manager

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284 Raritan Center Parkway ■ CN 7808 ■ Edison, New Jersey 08818-7808 ■ 201-225-5600

TABULATED ANALYTICAL RESULTS

ETC

JUN 26, 1990
QV60310

TABLE 1: QUANTITATIVE RESULTS and QUALITY ASSURANCE DATA

Volatile Compounds - GC/MS Analysis Data (QR01)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9494	GOLDER ASSOCIATES	490	SB-4-3B	900610	1315	0

NPDES Number	Compound	Results		QC Replicate		QC Blank and Spiked Blank			QC Matrix Spike		
		Sample Concen. ug/kg	MDL ug/kg	First ug/kg	Second ug/kg	Blank Data ug/kg	Concen. Added ug/kg	% Recov	Unspiked Sample ug/kg	Concen Added ug/kg	% Recov
15V	1,2-Dichloroethane	ND	2.8	52.0	54.3	ND	50.0	108	ND	50.0	104

Acrolein and Acrylonitrile values are screen only.

All zero and variable recoveries have been manually verified.

ETC

JUN 26, 1990

TABLE 2: METHOD PERFORMANCE DATA
Surrogate Recovery Soil - GC/MS Data (QR20)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9494	GOLDER ASSOCIATES	490	SB-4-3B	900610	1315	0

Compound	Amount added ug	% Recovery	IFB EPA Control Limits Lower	IFB EPA Control Limits Upper
VOLATILE FRACTION (GC/MS)				
Toluene-D8	.250	109	81	117
p-Bromofluorobenzene	.250	84	74	121
1,2-Dichloroethane-D4	.250	99	70	121
ACID FRACTION (GC/MS)				
Phenol-D5	-	-	24	113
2-Fluorophenol	-	-	25	121
2,4,6-Tribromophenol	-	-	19	122
BASE/NEUTRAL FRACTION (GC/MS)				
Nitrobenzene-D5	-	-	23	120
2-Fluorobiphenyl	-	-	30	115
Terphenyl-D14	-	-	18	137
PESTICIDE/PCB FRACTION (GC)				
Dibutylchlorendate	-	-	20**	150**
2,4,5,6-Tetrachloro-m-xylene	-	-	34	160

** Advisory Limits Only

GC/MS QUALITY CONTROL DATA

Instrument Performance Check

- Tuning and Mass Calibration

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3356 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1008

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Pack.

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.5
75	30.0 - 60.0% of mass 95	54.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	67.7
175	5.0 - 9.0% of mass 174	4.4 (6.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	66.5 (98.2)1
177	5.0 - 9.0% of mass 176	4.2 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310US	>B3357	06/19/90	1049
02		QC60310US	>B3358	06/19/90	1137
03		QC60310U	>B3359	06/19/90	1224
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

1/87 Rev.

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3360 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1359

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Pack

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.7
75	30.0 - 60.0% of mass 95	52.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	71.6
175	5.0 - 9.0% of mass 174	5.2 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.1 (99.4)1
177	5.0 - 9.0% of mass 176	5.9 (8.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		FA9488U	>B3361	06/19/90	1425
02		FA9488US	>B3362	06/19/90	1511
03		FA9488UR	>B3363	06/19/90	1557
04		FA9489U	>B3364	06/19/90	1644
05		FA9490U	>B3365	06/19/90	1731
06		FA9491U	>B3366	06/19/90	1817
07		FA9493U	>B3368	06/19/90	1950
08		FA9494U	>B3369	06/19/90	2038
09		FA9495U	>B3370	06/19/90	2124
10		FA9496U	>B3371	06/19/90	2211
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

1/87 Rev.

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3374 BFB Injection Date: 06/20/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0900

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	50.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	83.0
175	5.0 - 9.0% of mass 174	6.6 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.9 (96.3)1
177	5.0 - 9.0% of mass 176	6.7 (8.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310US	>B3375	06/20/90	0936
02		QC60310U2	>B3376	06/20/90	1023
03		FA9492U2	>B3377	06/20/90	1118
04		FA9497U2	>B3378	06/20/90	1205
05		FA9586U2	>B3384	06/20/90	1646
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

1/87 Rev.

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3407 BFB Injection Date: 06/22/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1438

Matrix: (soil/water) Sol Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	51.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	87.6
175	5.0 - 9.0% of mass 174	6.0 (6.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	86.5 (98.7)1
177	5.0 - 9.0% of mass 176	7.4 (8.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310VS	>B3408	06/22/90	1510
02		QC60310V3	>B3409	06/22/90	1556
03		FA9570V3	>B3410	06/22/90	1727
04		FA9571V3	>B3411	06/22/90	1813
05		FA9572V3	>B3412	06/22/90	1859
06		FA9573V3	>B3413	06/22/90	1946
07		FA9574V3	>B3414	06/22/90	2032
08		FA9588V3	>B3416	06/22/90	2205
09		FA9589V3	>B3417	06/22/90	2252
10		FA9590V3	>B3418	06/22/90	2338
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

1/87 Rev.

CHAIN OF CUSTODY DOCUMENTATION

- Chain of Custody Forms
- Laboratory Chronicles
- Subcontract

ENVIRONMENTAL TESTING and CERTIFICATION

CHAIN OF CUSTODY FORM (CC1)

ORIGINAL

Seal No. 0172181 ETC Job # FA9494

Date Sealed 90-06-04 By: ICD

Company: Chemical Waste Management Attn.: Steve Lonneman

Facility/Site: Phone: (419) 547-7791

Address: 3956 State Route 412, Vickery OH 43464

SAMPLE IDENTIFICATION

Facility: 490 (Facility/Site Code) (Optional Sample Point Descriptions)

Sample Point: S - B - 4, 3B (Source Code (from below) / Your Sample Point ID (left justify)) 910610 (Start Date (YY/MM/DD)) 1315 (Start Time (2400 hr. clock)) 000 (Elapsed Hours (composite))

Source Codes:
Well ..(W) Outfall .....(O) Bottom Sediment ....(B) Surface Impoundment....(I) Leachate Collection Sys.....(C) Other .....(X)
Soil ...(S) River/Stream..(R) Generation Point ....(G) Treatment Facility .....(T) Lake/Ocean .....(L) Specify

SHUTTLE CONTENTS

BOTTLE				ANALYSIS	SAMPLER		LAB
No	Type	Size	Preserv.		Filt. (Y/N)	Observations	Observations
1	VOA	40	—	1, 2- Dichloroethane	N		✓

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) LORI E. LOZIER Date: 6-9-90 Time: 1350
Signature: [signature] Seal #: 0172181 Intact: YES

2. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

3. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

4. Shuttle Sealed By: (print) LORI E LOZIER Date: 6-13-90 Time: 1000
Signature: [signature] Seal #: 0172180 Intact: YES

LAB USE ONLY Opened By: [signature] Date: 6-14-90 Time: 11:53

SHUTTLE # 1153 TEMP. °C 6 SEAL # 0172180 COND. intact

ETC Corp. LABORATORY

Date 6/20/90 Instr. G

A-Type PP1104
Tape file AREI02
Data file
Method file V8260
ID file IB0258
CB file CB0258
Analyst K. Brown
Reviewed by/Date K. Brown 6/23/90
Batch #'s QV 60310

Standard	Conc ppm	Lot No.	Lot Vol.
See Page 1			

__ Standards Updated
Date ____ By ____

Tape # ____ Inj. __ ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	P-BFB	>B3374	1ul	–		09:00	OK 1/9 (ENH.-1:10)	
	QC60310VS	>B3375	5ul	10	(QCAL)	09:36	OK 5ul CAL I+II	
	QC60310V2	>B3376	↓	11		10:23	OK	
R	FA7492V2	>B3377	5gm	1		11:18	OK	
R	FA7497V2	>B3378	↓	2		12:05	OK	
	FA9570V2	>B3379	5gm	3			SURR OUT	
	FA9571V2	>B3380		4			SURR OUT	
	FA9572V2	>B3381		5			SURR OUT	
	FA9573V2	>B3382		6			SURR OUT	
	FA9574V2	>B3383		7			Leaked?	
	FA9586V2	>B3384		8		16:46	OK	
	FA9587V2	>B3385		11			Leaked?	
	FA9588V2	>B3386		12				
	FA9589V2	>B3387		13				
	FA9590V2	>B3388		14			No r r s/r	
	QC60310V2	>B3389	5ul	9		20:39	OK	
	P-BFB	>B3390	1ul	–		10:26	OK 1/6 (ENH)-24	
	QC60310VS	>B3391	5ul	1	(QCAL)	10:55	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 20

Date 6/21/96 Instr. B

Type
Seq. file
Method file See Pg#1
ID file
CB file
Analyst
Reviewed by/Date 6/23/96
Batch #'s QV60310

Standards Updated
Date By

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg#1			

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	QC60310V3	>B3392	5ml	2			NG	
	QC60310V3	>B3393	5ml	2			NG	
	QC60310V3	>B3394	5ml	2			NG	
	QC60310V3	>B3395	5ml	16			NG	
	QC60310V3	>B3396	5ml	1			NG	
	QC60310V3	>B3397	5ml	2			NG	
R	FA9570V3	>B3398	5gm	3				
R	FA9571V3	>B3399		4				
R	FA9572V3	>B3400		5				
R	FA9573V3	>B3401		6				
R	FA9574V3	>B3402		7				
R	FA9587V3	>B3403		8				
R	FA9588V3	>B3404		9				
R	FA9589V3	>B3405		10				
R	FA9590V3	>B3406		11				
	P-BFB	>B3407	1ul	—		14:38	OK 1/3 (ENH, 1:2)	
	QC60310VS	>B3408	5ml	1	(QCal)		OK 5ul CALIB IAII	
	QC60310V3	>B3409	5ml	2		15:56	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 29 Page 7 of 7

Date 6/21/90 Instr. B

Type

Tune file

Seq. file

Method file See Pg #1

ID file

CB file

Analyst K. Box

Reviewed by/Date K. Box 6/25/90

Batch #'s QV60310

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg #1			

Standards Updated

Date By

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
R	FA9570V3	>B3410	5gm	3		17:27	OK	
R	FA9571V3	>B3411		4		18:13	OK	
R	FA9572V3	>B3412		5		18:59	OK matrix	
R	FA9573V3	>B3413		6		19:46	OK	
R	FA9574V3	>B3414		7		20:32	OK	
R	FA9587V3	>B3415		8			rr 1:5 or std	
R	FA9588V3	>B3416		9		22:05	OK	
R	FA9589V3	>B3417		10		22:52	OK	
R	FA9590V3	>B3418		11		23:38	OK	

R : redo , P : Aroclor search , + : Plus search

OHM Corporation

ETC Environmental Testing and Certification Corp.

Technical Report

for

GOLDER ASSOCIATES

3737 CHAMBLEE-TUCKER ROAD

ATLANTA, GA 30341

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9495	GOLDER ASSOCIATES	490	SB-4-4B	900610	1315	

Richard P. Albert

Vice President, General Manager

This Technical Report is an INSITE℠ service generated by LODESTAR℠ Data Management Software.

284 Raritan Center Parkway ■ CN 7808 ■ Edison, New Jersey 08818-7808 ■ 201-225-5600

TABULATED ANALYTICAL RESULTS

ETC

JUN 26, 1990
QV60310

TABLE 1: QUANTITATIVE RESULTS and QUALITY ASSURANCE DATA

Volatile Compounds - GC/MS Analysis Data (QR01)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9495	GOLDER ASSOCIATES	490	SB-4-4B	900610	1315	0

NPDES Number	Compound	Results		QC Replicate		QC Blank and Spiked Blank			QC Matrix Spike		
		Sample Concen. ug/kg	MDL ug/kg	First ug/kg	Second ug/kg	Blank Data ug/kg	Concen. Added ug/kg	% Recov	Unspiked Sample ug/kg	Concen Added ug/kg	% Recov
15V	1,2-Dichloroethane	ND	2.8	52.0	54.3	ND	50.0	108	ND	50.0	104

Acrolein and Acrylonitrile values are screen only.

All zero and variable recoveries have been manually verified.

ETC

JUN 26, 1990

TABLE 2: METHOD PERFORMANCE DATA
Surrogate Recovery Soil - GC/MS Data (QR20)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9495	GOLDER ASSOCIATES	490	SB-4-4B	900610	1315	0

Compound	Amount added ug	% Recovery	IFB EPA Control Limits Lower	IFB EPA Control Limits Upper
VOLATILE FRACTION (GC/MS)				
Toluene-D8	.250	110	81	117
p-Bromofluorobenzene	.250	87	74	121
1,2-Dichloroethane-D4	.250	102	70	121
ACID FRACTION (GC/MS)				
Phenol-D5	-	-	24	113
2-Fluorophenol	-	-	25	121
2,4,6-Tribromophenol	-	-	19	122
BASE/NEUTRAL FRACTION (GC/MS)				
Nitrobenzene-D5	-	-	23	120
2-Fluorobiphenyl	-	-	30	115
Terphenyl-D14	-	-	18	137
PESTICIDE/PCB FRACTION (GC)				
Dibutylchlorendate	-	-	20**	150**
2,4,5,6-Tetrachloro-m-xylene	-	-	34	160

** Advisory Limits Only

GC/MS QUALITY CONTROL DATA

Instrument Performance Check

- Tuning and Mass Calibration

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3356 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1008

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Pack

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.5
75	30.0 - 60.0% of mass 95	54.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	67.7
175	5.0 - 9.0% of mass 174	4.4 (6.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	66.5 (98.2)1
177	5.0 - 9.0% of mass 176	4.2 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310VS	>B3357	06/19/90	1049
02		QC60310VS	>B3358	06/19/90	1137
03		QC60310V	>B3359	06/19/90	1224
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3360 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1359

Matrix: (soil/water) Wat Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.7
75	30.0 - 60.0% of mass 95	52.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	71.6
175	5.0 - 9.0% of mass 174	5.2 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.1 (99.4)1
177	5.0 - 9.0% of mass 176	5.9 (8.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		FA9488U	>B3361	06/19/90	1425
02		FA9488US	>B3362	06/19/90	1511
03		FA9488UR	>B3363	06/19/90	1557
04		FA9489U	>B3364	06/19/90	1644
05		FA9490U	>B3365	06/19/90	1731
06		FA9491U	>B3366	06/19/90	1817
07		FA9493U	>B3368	06/19/90	1950
08		FA9494U	>B3369	06/19/90	2038
09		FA9495U	>B3370	06/19/90	2124
10		FA9496U	>B3371	06/19/90	2211
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3374 BFB Injection Date: 06/20/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0900

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Pack

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	50.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	83.0
175	5.0 - 9.0% of mass 174	6.6 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.9 (96.3)1
177	5.0 - 9.0% of mass 176	6.7 (8.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310US	>B3375	06/20/90	0936
02		QC60310U2	>B3376	06/20/90	1023
03		FA9492U2	>B3377	06/20/90	1118
04		FA9497U2	>B3378	06/20/90	1205
05		FA9586U2	>B3384	06/20/90	1646
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3407 BFB Injection Date: 06/22/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1438

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	51.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	87.6
175	5.0 - 9.0% of mass 174	6.0 (6.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	86.5 (98.7)1
177	5.0 - 9.0% of mass 176	7.4 (8.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310VS	>B3408	06/22/90	1510
02		QC60310V3	>B3409	06/22/90	1556
03		FA9570V3	>B3410	06/22/90	1722
04		FA9571V3	>B3411	06/22/90	1813
05		FA9572V3	>B3412	06/22/90	1859
06		FA9573V3	>B3413	06/22/90	1946
07		FA9574V3	>B3414	06/22/90	2032
08		FA9588V3	>B3416	06/22/90	2205
09		FA9589V3	>B3417	06/22/90	2252
10		FA9590V3	>B3418	06/22/90	2338
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA 1/87 Rev.

CHAIN OF CUSTODY DOCUMENTATION

- Chain of Custody Forms
- Laboratory Chronicles
- Subcontract

ENVIRONMENTAL TESTING and CERTIFICATION

CHAIN OF CUSTODY FORM (CC1)

ORIGINAL

Seal No. 0172181 ETC Job # FA9495

Date Sealed 90-06-04 By: KO

Company: Chemical Waste Management Attn.: Steve Lonneman

Facility/Site: Phone: (419) 547-7791

Address: 3956 State Route 412, Vickery OH 43464

SAMPLE IDENTIFICATION

Facility: 4910 (Facility/Site Code) (Optional Sample Point Descriptions)

Sample Point: S - B - 4 4B (Source Code (from below) / Your Sample Point ID (left justify)) 910616 (Start Date (YY/MM/DD)) 1315 (Start Time (2400 hr. clock)) 000 (Elapsed Hours (composite))

Source Codes:

Well ..(W) Outfall.....(O) Bottom Sediment....(B) Surface Impoundment....(I) Leachate Collection Sys.....(C) Other .....(X)

Soil ...(S) River/Stream..(R) Generation Point ....(G) Treatment Facility .....(T) Lake/Ocean .....(L) Specify

SHUTTLE CONTENTS

BOTTLE				ANALYSIS	SAMPLER		LAB
No	Type	Size	Preserv.		Fill. (Y/N)	Observations	Observations
1	VOA	40	—	1,2 - Dichloroethane	N		✓

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) LORI E. LOZIER Date: 6-9-90 Time: 1350
Signature: [signature] Seal #: 0172181 Intact: YES

2. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

3. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

4. Shuttle Sealed By: (print) LORI E LOZIER Date: 6-13-90 Time: 1000
Signature: [signature] Seal #: 0172180 Intact: YES

LAB USE ONLY Opened By: R. Doughty Date: 6-14-90 Time: 11:55

SHUTTLE # 1153 TEMP. °C F SEAL # 0172180 COND. intact

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 26 Page 1 of 4

Date 6/19/90 Instr. B

Type PP/VOA
Tune file APEI02
Seq. file BBB
Method file VOAB
ID file FB0258
CB file cb0258
Analyst [illegible]
Reviewed By/Date K. [illegible] 6/25/90

Batch #'s QV60310

Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
p-BFB	50	9171	1ul
INT STD - SUPR	25	9435	10ul
CAL I	50	9528	2,5,10,15,20
CAL II	50	9529	↓

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	P
	p-BFB	>B3356	1ul	—		10:08	OK 124 eah	
	QV60310VS	>B3357	5	14		10:49	OK Sul Cal I,II ↓	
	QV60310VS	>B3358	5	15	QCAL	11:37	ok	
	QV60310V	>B3359	5	16		12:24	OK BLANK	
	p-BFB	>B3360	1ul	—		13:59	OK 119 eah	
	FA9488V	>B3361	5	13		14:25	OK	
	FA9488VS	>B3362	5	14		15:11	OK Sul Cal I,II ↓	
	FA9488VR	>B3363	5	15		15:57	OK	
	FA9489V	>B3364	5	16		16:44	OK	
	FA9490V	>B3365	5	1		17:31	OK	
	FA9491V	>B3366	5	2		18:17	OK	
	FA9492V	>B3367	5	3			SURR OUT	
	FA9493V	>B3368	5	4		19:50	OK	
	FA9494V	>B3369	5	5		20:38	OK	
	FA9495V	>B3370	5	6		21:24	OK	
	FA9496V	>B3371	5	7		22:11	OK	
	FA9497V	>B3372	5	8			SURR OUT	
	QC60310V	>B3373	5	9			NO POS BLANK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE

Date 6/20/90 Instr. G

Type PP1104
ine file APEI02
seq. file
Method file VXG
ID file ID0258
CB file CB0258
Analyst K. Brown
Reviewed by/Date K. Brown, 6/23/90

Batch #'s QV 60310

Standard	Conc ppm	Lot No.	Lot Vol.
See Page 1			

Standards Updated
Date By

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	P-BFB	>B3374	1ul	–		09:00	OK 119 (ENH, -1:0)	
	QC60310VS	>B3375	5ul	10	(QCAL)	09:36	OK 5ul CAL I+II	
	QC60310V2	>B3376	↓	11		10:23	OK	
(1)	FA7492V2	>B3377	5ml	1		11:18	OK	
(1)	FA9497V2	>B3378	↓	2		12:05	OK	
	FA9570V2	>B3379	5ml	3			SURR OUT	
	FA9571V2	>B3380		4			SURR OUT	
	FA9572V2	>B3381		5			SURR OUT	
	FA9573V2	>B3382		6			SURR OUT	
	FA9574V2	>B3383		7			Leaked?	
	FA9586V2	>B3384		8		16:46	OK	
	FA9587V2	>B3385		11			Leaked?	
	FA9588V2	>B3386		12				
	FA9589V2	>B3387		13				
	FA9590V2	>B3388		14			No IS SPK	
	QC60310V2	>B3389	5ml	9		20:39	OK	
	P-BFB	>B3390	1ul	–		10:26	OK 116 (ENH) -24	
	QC60310VS	>B3391	5ml	1	(QCAL)	10:55	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE

Date 6/21/96 Instr. B

Type
ne file
peq. file Pg#1
Method file
ID file See
CB file
Analyst K. Brown
Reviewed by/Date K. Brown 6/23/96
Batch #'s QV60310

Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg#1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	P
	QC60310V3	>B3392	5ml	2			NG	
	QC60310V3	>B3393	5ml	2			NG	
	QC60310V3	>B3394	5ml	2			NG	
	QC60310V3	>B3395	5ml	16			NG	
	QC60310V3	>B3396	5ml	1			NG	
	QC60310V3	>B3397	5ml	2			NG	
R	FA9570V3	>B3398	5gm	3				
R	FA9571V3	>B3399		4				
R	FA9572V3	>B3400		5				
R	FA9573V3	>B3401		6				
R	FA9574V3	>B3402		7				
R	FA9587V3	>B3403		8				
R	FA9588V3	>B3404		9				
R	FA9589V3	>B3405		10				
R	FA9590V3	>B3406		11				
	P-BFB	>B3407	1ul	—		14:38	OK 113 (EN H, 1:2)	
	QC60310VS	>B3408	5ml	1	(Qcal)		OK 5ul cal ID IAH	
	QC60310V3	>B3409	5ml	2		15:56	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 29 Page 4 of 4

Date 6/21/90 Instr. B

Type
ne file
eq. file
lethod file See Pg #1
D file
CB file
nalyst K.Bor
Reviewed by/Date K.Bor 6/25/90
Batch #'s QV60310

__ Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg #1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
R	FA9570V3	>B3410	5gm	3		17:27	OK	
R	FA9571V3	>B3411		4		18:13	OK	
R	FA9572V3	>B3412		5		18:59	OK matrix	
R	FA9573V3	>B3413		6		19:46	OK	
R	FA9574V3	>B3414		7		20:32	OK	
R	FA9587V3	>B3415		8			rr 1:5 or str	
R	FA9588V3	>B3416		9		22:05	OK	
R	FA9589V3	>B3417		10		22:52	OK	
R	FA9590V3	>B3418		11		23:38	OK	

R : redo , P : Aroclor search , + : Plus search

OHM Corporation

ETC Environmental Testing and Certification Corp.

Technical Report

for

GOLDER ASSOCIATES

3737 CHAMBLEE-TUCKER ROAD

ATLANTA, GA 30341

Chain of Custody Data Required for ETC Data Management Summary Reports						
FA9496	GOLDER ASSOCIATES	490	SB-4-5A	900610	1315	
ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours

Richard P. Albert

Vice President, General Manager

This Technical Report is an INSITE℠ service generated by LODESTAR℠ Data Management Software.

284 Raritan Center Parkway ■ CN 7808 ■ Edison, New Jersey 08818-7808 ■ 201-225-5600

TABULATED ANALYTICAL RESULTS

ETC

JUN 26, 1990
QV60310

TABLE 1: QUANTITATIVE RESULTS and QUALITY ASSURANCE DATA

Volatile Compounds - GC/MS Analysis Data (QR01)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9496	GOLDER ASSOCIATES	490	SB-4-5A	900610	1315	0

NPDES Number	Compound	Results		QC Replicate		QC Blank and Spiked Blank			QC Matrix Spike		
		Sample Concen. ug/kg	MDL ug/kg	First ug/kg	Second ug/kg	Blank Data ug/kg	Concen. Added ug/kg	% Recov	Unspiked Sample ug/kg	Concen. Added ug/kg	% Recov
15V	1,2-Dichloroethane	ND	2.8	52.0	54.3	ND	50.0	108	ND	50.0	104

Acrolein and Acrylonitrile values are screen only.

All zero and variable recoveries have been manually verified.

ETC

JUN 26, 1990

TABLE 2: METHOD PERFORMANCE DATA
Surrogate Recovery Soil - GC/MS Data (QR20)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9496	GOLDER ASSOCIATES	490	SB-4-5A	900610	1315	0

Compound	Amount added ug	% Recovery	IFB EPA Control Limits Lower	IFB EPA Control Limits Upper
VOLATILE FRACTION (GC/MS)				
Toluene-D8	.250	109	81	117
p-Bromofluorobenzene	.250	91	74	121
1,2-Dichloroethane-D4	.250	104	70	121
ACID FRACTION (GC/MS)				
Phenol-D5	-	-	24	113
2-Fluorophenol	-	-	25	121
2,4,6-Tribromophenol	-	-	19	122
BASE/NEUTRAL FRACTION (GC/MS)				
Nitrobenzene-D5	-	-	23	120
2-Fluorobiphenyl	-	-	30	115
Terphenyl-D14	-	-	18	137
PESTICIDE/PCB FRACTION (GC)				
Dibutylchlorendate	-	-	20**	150**
2,4,5,6-Tetrachloro-m-xylene	-	-	34	160

** Advisory Limits Only

GC/MS QUALITY CONTROL DATA

Instrument Performance Check

- Tuning and Mass Calibration

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3356 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1008

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap.

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.5
75	30.0 - 60.0% of mass 95	54.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	67.7
175	5.0 - 9.0% of mass 174	4.4 (6.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	66.5 (98.2)1
177	5.0 - 9.0% of mass 176	4.2 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310VS	>B3357	06/19/90	1049
02		QC60310VS	>B3358	06/19/90	1137
03		QC60310V	>B3359	06/19/90	1224
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3360 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1359

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.7
75	30.0 - 60.0% of mass 95	52.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	71.6
175	5.0 - 9.0% of mass 174	5.2 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.1 (99.4)1
177	5.0 - 9.0% of mass 176	5.9 (8.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		FA9488U	>B3361	06/19/90	1425
02		FA9488US	>B3362	06/19/90	1511
03		FA9488UR	>B3363	06/19/90	1557
04		FA9489U	>B3364	06/19/90	1644
05		FA9490U	>B3365	06/19/90	1731
06		FA9491U	>B3366	06/19/90	1817
07		FA9493U	>B3368	06/19/90	1950
08		FA9494U	>B3369	06/19/90	2038
09		FA9495U	>B3370	06/19/90	2124
10		FA9496U	>B3371	06/19/90	2211
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

1/87 Rev.

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3374 BFB Injection Date: 06/20/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0900

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	50.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	83.0
175	5.0 - 9.0% of mass 174	6.6 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.9 (96.3)1
177	5.0 - 9.0% of mass 176	6.7 (8.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310VS	>B3375	06/20/90	0936
02		QC60310V2	>B3376	06/20/90	1023
03		FA9492V2	>B3377	06/20/90	1118
04		FA9497V2	>B3378	06/20/90	1205
05		FA9586V2	>B3384	06/20/90	1646
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3407 BFB Injection Date: 06/22/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1438

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	51.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	87.6
175	5.0 - 9.0% of mass 174	6.0 (6.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	86.5 (98.7)1
177	5.0 - 9.0% of mass 176	7.4 (8.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310US	>B3408	06/22/90	1510
02		QC60310U3	>B3409	06/22/90	1556
03		FA9570U3	>B3410	06/22/90	1727
04		FA9571U3	>B3411	06/22/90	1813
05		FA9572U3	>B3412	06/22/90	1859
06		FA9573U3	>B3413	06/22/90	1946
07		FA9574U3	>B3414	06/22/90	2032
08		FA9588U3	>B3416	06/22/90	2205
09		FA9589U3	>B3417	06/22/90	2252
10		FA9590U3	>B3418	06/22/90	2338
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

1/87 Rev.

CHAIN OF CUSTODY DOCUMENTATION

- Chain of Custody Forms
- Laboratory Chronicles
- Subcontract

ENVIRONMENTAL TESTING and CERTIFICATION

CHAIN OF CUSTODY FORM (CC1)

ORIGINAL

Seal No. 0172181 ETC Job # FA9496

Date Sealed 90-06-04 By: 100

Company: Chemical Waste Management Attn.: Steve Lonneman

Facility/Site: Phone: (419) 547-7791

Address: 3956 State Route 412, Vickery, OH 43464

SAMPLE IDENTIFICATION

Facility: 4910 (Facility/Site Code) (Optional Sample Point Descriptions)

Sample Point: S - B1-14, 15A (Source Code (from below); Your Sample Point ID (left justify)) 910606 (Start Date (YY/MM/DD)) 1315 (Start Time (2400 hr. clock)) 000 (Elapsed Hours (composite))

Source Codes:
Well ..(W) Outfall.....(O) Bottom Sediment....(B) Surface Impoundment....(I) Leachate Collection Sys.....(C) Other .....(X)
Soil ...(S) River/Stream..(R) Generation Point ....(G) Treatment Facility .....(T) Lake/Ocean .....(L) Specify

SHUTTLE CONTENTS

BOTTLE				ANALYSIS	SAMPLER		LAB
No	Type	Size	Preserv.		Filt. (Y/N)	Observations	Observations
1	VOA	40	–	1,2 - Dichloroethane	N		✓

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) LORI E. LOZIER Date: 6-9-90 Time: 1320
Signature: Lori E. Lozier Seal #: 0172181 Intact: YES

2. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

3. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

4. Shuttle Sealed By: (print) LORI E. LOZIER Date: 6-13-90 Time: 1000
Signature: Lori E. Lozier Seal #: 0172180 Intact: YES

LAB USE ONLY Opened By: R Dove Date: 6-14-90 Time: 1155
SHUTTLE # 1155 TEMP. °C 6 SEAL # 0172180 COND. intact

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 26 Page 1 of 4

Date 6/19/90 Instr. B

Type PP/VOA
One file APEI02
Seq. file BBB
Method file VOAB
ID file EB0258
CB file cB0258
Analyst [illegible]
Reviewed By/Date K. Bray 6/22/90

Batch #'s QV60310

Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
p-BFB	50	9171	1ul
INT STD - SUCR	25	9435	10ul
CAL I	50	9528	2,5,10,15,20
CAL II	50	9529	↓

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	P
	p-BFB	>B3356	1ul	—		10:08	OK 124 ent	
	QV60310US	>B3357	5	14		10:49	OK 5ul Cal I, II	
	QV60310US	>B3358	5	15	QCAL	11:37	OK ↓	
	QV60310V	>B3359	5	16		12:24	OK BLANK	
	p-BFB	>B3360	1ul	—		13:59	OK 119 ent	
	FA9488V	>B3361	5	13		14:25	OK	
	FA9488US	>B3362	5	14		15:11	OK 5ul Cal I, II	
	FA9488VR	>B3363	5	15		15:57	OK ↓	
	FA9489V	>B3364	5	16		16:44	OK	
	FA9490V	>B3365	5	1		17:31	OK	
	FA9491V	>B3366	5	2		18:17	OK	
	FA9492V	>B3367	5	3			SUCR OUT	
	FA9493V	>B3368	5	4		19:50	OK	
	FA9494V	>B3369	5	5		20:38	OK	
	FA9495V	>B3370	5	6		21:24	OK	
	FA9496V	>B3371	5	7		22:11	OK	
	FA9497V	>B3372	5	8			SUCR OUT	
	QC60310V	>B3373	5	9			NO POS BLANK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE

Date 6/20/93 Instr. B

A-Type PP1104
e file APEI02
Seq. file
Method file V0KB
ID file IB0258
CB file CB0258
Analyst K.Brown
Reviewed by/Date K Brn, 6/23/94

Batch #'s QV 60310

__ Standards Updated
Date ______ By ______

Tape # ______ Inj. ___ ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg # 1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	P-BFB	>B3374	1ul	—		09:00	OK 119 (ENH, -1.0)	
	QC60310VS	>B3375	5ml	10	(QCAL)	09:36	OK 5ul Cal I+II	
	QC60310V2	>B3376	↓	11		10:23	OK	
A	FA7492V2	>B3377	5gm	1		11:18	OK	
A	FA9497V2	>B3378	↓	2		12:05	OK	
	FA9570V2	>B3379	5gm	3			SURR OUT	
	FA9571V2	>B3380		4			SURR OUT	
	FA9572V2	>B3381		5			SURR OUT	
	FA9573V2	>B3382		6			SURR OUT	
	FA9574V2	>B3383		7			Leaked?	
	FA9586V2	>B3384		8		16:46	OK	
	FA9587V2	>B3385		11			Leaked?	
	FA9588V2	>B3386		12			↓	
	FA9589V2	>B3387		13				
	FA9590V2	>B3388	↓	14			No rr sig	
	QC60310V2	>B3389	5ml	9		20:39	OK	
	P-BFB	>B3390	1ul	—		10:26	OK 116 (ENH) -24	
	QC60310VS	>B3391	5ml	1	Q(cal)	10:55	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Supe... 20

Date 6/21/96 Instr. B

a-Tape
T file
Seq. file Pg#1
Method file See
ID file
CB file
Analyst K. Brown
Reviewed by/Date K. Brown 6/23/96

Batch #'s QV60310

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg#1			

Standards Updated
Date By

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	QC60310V3	>B3392	5ml	2			NG	
	QC60310V3	>B3393	5ml	2			NG	
	QC60310V3	>B3394	5ml	2			NG	
	QC60310V3	>B3395	5ml	16			NG	
	QC60310V3	>B3396	5ml	1			NG	
	QC60310V3	>B3397	5ml	2			NG	
R	FA9570V3	>B3398	5gm	3				
R	FA9571V3	>B3399		4				
R	FA9572V3	>B3400		5				
R	FA9573V3	>B3401		6				
R	FA9574V3	>B3402		7				
R	FA9587V3	>B3403		8				
R	FA9588V3	>B3404		9				
R	FA9589V3	>B3405		10				
R	FA9590V3	>B3406		11				
	P-BFB	>B3407	1ul	—		14:38	OK 1/3 (ENH, 1:2)	
	QC60310V3	>B3408	5ml	1	(Qcal)		OK 5ul cal IB IAF	
	QC60310V3	>B3409	5ml	2		15:56	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 29 Page 4 of 4

Date 6/21/90 Instr. B

Type
e file
Seq. file See Pg #1
Method file
ID file
CB file
Analyst K.Bor
Reviewed by/Date K.Bor 6/25/90
Batch #'s QV60310

__ Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg #1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
R	FA9570V3	>B3410	5gm	3		17:27	OK	
R	FA9571V3	>B3411		4		18:13	OK	
R	FA9572V3	>B3412		5		18:59	OK matrix	
R	FA9573V3	>B3413		6		19:46	OK	
R	FA9574V3	>B3414		7		20:32	OK	
R	FA9587V3	>B3415		8			rr 1:5 or str	
R	FA9588V3	>B3416		9		22:05	OK	
R	FA9589V3	>B3417		10		22:52	OK	
R	FA9590V3	>B3418		11		23:38	OK	

R : redo , P : Aroclor search , + : Plus search

OHM Corporation

ETC Environmental Testing and Certification Corp.

Technical Report

for

GOLDER ASSOCIATES

3737 CHAMBLEE-TUCKER ROAD

ATLANTA, GA 30341

Chain of Custody Data Required for ETC Data Management Summary Reports						
FA9497	GOLDER ASSOCIATES	490	SB-4-5B	900610	1315	
ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours

Richard P. Albert

Vice President, General Manager

This Technical Report is an INSITE℠ service generated by LODESTAR℠ Data Management Software.

284 Raritan Center Parkway ■ CN 7808 ■ Edison, New Jersey 08818-7808 ■ 201-225-5600

TABULATED ANALYTICAL RESULTS

ETC

JUN 26, 1990
QV60310

TABLE 1: QUANTITATIVE RESULTS and QUALITY ASSURANCE DATA

Volatile Compounds - GC/MS Analysis Data (QR01)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9497	GOLDER ASSOCIATES	490	SB-4-5B	900610	1315	0

NPDES Number	Compound	Results		QC Replicate		QC Blank and Spiked Blank			QC Matrix Spike		
		Sample Concen. ug/kg	MDL ug/kg	First ug/kg	Second ug/kg	Blank Data ug/kg	Concen. Added ug/kg	% Recov	Unspiked Sample ug/kg	Concen Added ug/kg	% Recov
15V	1,2-Dichloroethane	ND	2.8	52.0	54.3	ND	50.0	108	ND	50.0	104

Acrolein and Acrylonitrile values are screen only.

All zero and variable recoveries have been manually verified.

ETC

JUN 26, 1990

TABLE 2: METHOD PERFORMANCE DATA
Surrogate Recovery Soil - GC/MS Data (QR20)

Chain of Custody Data Required for ETC Data Management Summary Reports

ETC Sample No.	Company	Facility	Sample Point	Date	Time	Elapsed Hours
FA9497	GOLDER ASSOCIATES	490	SB-4-5B	900610	1315	0

Compound	Amount added ug	% Recovery	IFB EPA Control Limits Lower	IFB EPA Control Limits Upper
VOLATILE FRACTION (GC/MS)				
Toluene-D8	.250	109	81	117
p-Bromofluorobenzene	.250	97	74	121
1,2-Dichloroethane-D4	.250	101	70	121
ACID FRACTION (GC/MS)				
Phenol-D5	-	-	24	113
2-Fluorophenol	-	-	25	121
2,4,6-Tribromophenol	-	-	19	122
BASE/NEUTRAL FRACTION (GC/MS)				
Nitrobenzene-D5	-	-	23	120
2-Fluorobiphenyl	-	-	30	115
Terphenyl-D14	-	-	18	137
PESTICIDE/PCB FRACTION (GC)				
Dibutylchlorendate	-	-	20**	150**
2,4,5,6-Tetrachloro-m-xylene	-	-	34	160

** Advisory Limits Only

GC/MS QUALITY CONTROL DATA

Instrument Performance Check

- Tuning and Mass Calibration

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3356 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1008

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Pack.

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.5
75	30.0 - 60.0% of mass 95	54.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	67.7
175	5.0 - 9.0% of mass 174	4.4 (6.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	66.5 (98.2)1
177	5.0 - 9.0% of mass 176	4.2 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310VS	>B3357	06/19/90	1049
02		QC60310VS	>B3358	06/19/90	1137
03		QC60310V	>B3359	06/19/90	1224
04					
05					
06					
07					
08					
09					
10					
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12					
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14					
15					
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22					

FORM V VOA

1/87 Rev.

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3360 BFB Injection Date: 06/19/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1359

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Pack

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.7
75	30.0 - 60.0% of mass 95	52.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	71.6
175	5.0 - 9.0% of mass 174	5.2 (7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.1 (99.4)1
177	5.0 - 9.0% of mass 176	5.9 (8.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		FA9488U	>B3361	06/19/90	1425
02		FA9488US	>B3362	06/19/90	1511
03		FA9488UR	>B3363	06/19/90	1557
04		FA9489U	>B3364	06/19/90	1644
05		FA9490U	>B3365	06/19/90	1731
06		FA9491U	>B3366	06/19/90	1817
07		FA9493U	>B3368	06/19/90	1950
08		FA9494U	>B3369	06/19/90	2038
09		FA9495U	>B3370	06/19/90	2124
10		FA9496U	>B3371	06/19/90	2211
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3374 BFB Injection Date: 06/20/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 0900

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Pack

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	50.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	83.0
175	5.0 - 9.0% of mass 174	6.6 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.9 (96.3)1
177	5.0 - 9.0% of mass 176	6.7 (8.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310US	>B3375	06/20/90	0936
02		QC60310U2	>B3376	06/20/90	1023
03		FA9492U2	>B3377	06/20/90	1118
04		FA9497U2	>B3378	06/20/90	1205
05		FA9586U2	>B3384	06/20/90	1646
06					
07					
08					
09					
10					
11					
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13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: ETC Corp. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.:

Lab File ID: >B3407 BFB Injection Date: 06/22/90

Instrument ID: GC/MS A/B_ BFB Injection Time: 1438

Matrix: (soil/water) Soil Level: (low/med) LOW Column: (pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	51.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	87.6
175	5.0 - 9.0% of mass 174	6.0 (6.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	86.5 (98.7)1
177	5.0 - 9.0% of mass 176	7.4 (8.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		QC60310VS	>B3408	06/22/90	1510
02		QC60310V3	>B3409	06/22/90	1556
03		FA9570V3	>B3410	06/22/90	1727
04		FA9571V3	>B3411	06/22/90	1813
05		FA9572V3	>B3412	06/22/90	1859
06		FA9573V3	>B3413	06/22/90	1946
07		FA9574V3	>B3414	06/22/90	2032
08		FA9588V3	>B3416	06/22/90	2205
09		FA9589V3	>B3417	06/22/90	2252
10		FA9590V3	>B3418	06/22/90	2338
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

1/87 Rev.

CHAIN OF CUSTODY DOCUMENTATION

- Chain of Custody Forms
- Laboratory Chronicles
- Subcontract

ENVIRONMENTAL TESTING and CERTIFICATION

Seal No. 0172181 ETC Job # FA9497

CHAIN OF CUSTODY FORM (CC1)

ORIGINAL

Date Sealed 90-06-04 By: KO

Company: Chemical Waste Management Attn.: Steve Lonneman

Facility/Site: Phone: (419) 547-7791

Address: 3925 State Route 412, Vickery, OH 43464

SAMPLE IDENTIFICATION

Facility: 4910 (Facility/Site Code) (Optional Sample Point Descriptions)

Sample Point: S-B-4 | 5B | 910610 | 1315 | 000

Source Code (from below) | Your Sample Point ID (left justify) | Start Date (YY/MM/DD) | Start Time (2400 hr. clock) | Elapsed Hours (composite)

Source Codes:

Well ..(W) Outfall.....(O) Bottom Sediment ....(B) Surface Impoundment ....(I) Leachate Collection Sys.....(C) Other .....(X)

Soil ...(S) River/Stream..(R) Generation Point ....(G) Treatment Facility .....(T) Lake/Ocean .....(L) Specify _____

SHUTTLE CONTENTS

BOTTLE				ANALYSIS	SAMPLER		LAB
No	Type	Size	Preserv.		Filt. (Y/N)	Observations	Observations
1	VOA	40	—	1,2 - Dichloroethane	N		✓

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) LORI E. LOZIER Date: 6-9-90 Time: 1350
Signature: [signature] Seal #: 0172181 Intact: YES

2. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

3. I have received these materials in good condition from the above person.
Name: Signature:
Date: Time: Remarks:

4. Shuttle Sealed By: (print) LORI E. LOZIER Date: 6-13-90 Time: 1000
Signature: Seal #: 0172180 Intact: YES

LAB USE ONLY Opened By: R Dreitz Date: 6/14/90 Time: 11:53

SHUTTLE # 1153 TEMP. °C 8 SEAL # 0172180 COND. intact

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 26 Page 1 of 4

Date 6/19/90 Instr. B

-Type PP/VOA
Tune file APEI02
Seq. file BBB
Method file VOAB
ID file IB0258
CB file CB0258
Analyst [illegible]
Reviewed By/Date K. Berry 6/22/90

Batch #'s QV60310

Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
p-BFB	50	9171	1ul
INT STD - SUR	25	9433	10ul
CAL I	50	9528	2,5,10,15,20
CAL II	50	9529	↓

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	P
	p-BFB	>B3356	1ul	—		10:08	OK 124 ent	
	QV60310VS	>B3357	5	14		10:49	OK 5ul Cal I,II ↓	
	QV60310VS	>B3358	5	15	QCAL	11:37	ok	
	QV60310V	>B3359	5	16		12:24	OK BLANK	
	p-BFB	>B3360	1ul	—		13:59	OK 119 ent	
	FA9488V	>B3361	5	13		14:25	OK	
	FA9488VS	>B3362	5	14		15:11	OK 5ul Cal I,II ↓	
	FA9488 VR	>B3363	5	15		15:57	OK	
	FA9489 V	>B3364	5	16		16:44	OK	
	FA9490 V	>B3365	5	1		17:31	OK	
	FA9491 V	>B3366	5	2		18:17	OK	
	FA9492 V	>B3367	5	3			SURR OUT	
	FA9493 V	>B3368	5	4		19:50	OK	
	FA9494 V	>B3369	5	5		20:38	OK	
	FA9495 V	>B3370	5	6		21:24	OK	
	FA9496 V	>B3371	5	7		22:11	OK	
	FA9497 V	>B3372	5	8			SURR OUT	
	QC60310 V	>B3373	5	9			NOT POS BLANK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY [illegible]

Date 6/20/90 Instr. G

A-Type PP1104
ne file APEI02
q. file ,
Method file VOKG
ID file IB0258
CB file CB0258
Analyst K. [illegible]
Reviewed by/Date K. [illegible], 6/23/90

Batch #'s QV 60310

Standard	Conc ppm	Lot No.	Lot Vol.
See Page 1			

Standards Updated
Date By

Tape # Inj. ul

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	P-BFB	>B3374	1ul	–		09:00	OK 119 (ENH, -1:0)	
	QC60310VS	>B3375	5ul	10	(QCAL)	09:36	OK 5ul CAL I+II	
	QC60310V2	>B3376	↓	11		10:23	OK	
R	FA7492V2	>B3377	5ml	1		11:18	OK	
R	FA9497V2	>B3378	↓	2		12:05	OK	
	FA9570V2	>B3379	5ml	3			SURR OUT	
	FA9571V2	>B3380		4			SURR OUT	
	FA9572V2	>B3381		5			SURR OUT	
	FA9573V2	>B3382		6			SURR OUT	
	FA9574V2	>B3383		7			Leaked?	
	FA9586V2	>B3384		8		16:46	OK	
	FA9587V2	>B3385		11			Leaked?	
	FA9588V2	>B3386		12			↓	
	FA9589V2	>B3387		13			↓	
	FA9590V2	>B3388		14			No ir sh	
	QC60310V2	>B3389	5ml	9		20:39	OK	
	P-BFB	>B3390	1ul	–		10:26	OK 116 (ENH) -24	
	QC60310VS	>B3391	5ml	1	(QCAL)	16:55	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 20

Date 6/21/90 Instr. B

Type
Seq. file Pg#1
Method file See
ID file
CB file
Analyst K. Brown
Reviewed by/Date K. Brown 6/23/90
Batch #'s QV60310

Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg#1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
	QC60310V3	>B3392	5ml	2			NG	
	QC60310V3	>B3393	5ml	2			NG	
	QC60310V3	>B3394	5ml	2			NG	
	QC60310V3	>B3395	5ml	16			NG	
	QC60310V3	>B3396	5ml	1			NG	
	QC60310V3	>B3397	5ml	2			NG	
R	FA9570V3	>B3398	5gm	3				
R	FA9571V3	>B3399		4				
R	FA9572V3	>B3400		5				
R	FA9573V3	>B3401		6				
R	FA9574V3	>B3402		7				
R	FA9587V3	>B3403		8				
R	FA9588V3	>B3404		9				
R	FA9589V3	>B3405		10				
R	FA9590V3	>B3406		11				
	P-BFB	>B3407	1ul	—		14:38	OK 1/3 (ENH, 1:2)	
	QC60310VS	>B3408	5ml	1	(Qcal)		OK 5ul cal IB I+II	
	QC60310V3	>B3409	5ml	2		15:56	OK	

R : redo , P : Aroclor search , + : Plus search

ETC Corp. LABORATORY CHRONICLE : GC-MS Department 29 Page 4 of 4

Date 6/21/90 Instr. B

Type
ne file
eq. file , Pg#1
ethod file See
D file
B file
nalyst K.Bor
eviewed by/Date K.Bor 6/25/90
atch #'s QV60310

__ Standards Updated
Date By

Tape # Inj. ul

Standard	Conc ppm	Lot No.	Lot Vol.
See Pg#1			

R	NAME	DATA File	init. ml/g	ALS #	Dil	Inj. Time	Comments	+ P
R	FA9570V3	>B3410	5gm	3		17:27	OK	
R	FA9571V3	>B3411		4		18:13	OK	
R	FA9572V3	>B3412		5		18:59	OK matrix	
R	FA9573V3	>B3413		6		19:46	OK	
R	FA9574V3	>B3414		7		20:32	OK	
R	FA9587V3	>B3415		8			rr 1:5 or str	
R	FA9588V3	>B3416		9		22:05	OK	
R	FA9589V3	>B3417		10		22:52	OK	
R	FA9590V3	>B3418		11		23:38	OK	

R : redo , P : Aroclor search , + : Plus search

OhioEPA
State of Ohio Environmental Protection Agency

Northwest District Office
347 North Dunbridge Road
P.O. Box 466
Bowling Green, Ohio 43402-0466
(419) 352-8461 **FAX** (419) 352-8468

George V. Voinovich
Governor

Re: Chemical Waste Management
Hazardous Waste
Sandusky County

August 4, 1993

CERTIFIED MAIL

Mr. Fred Nicar
Chemical Waste Management
3956 State Route 412
Vickery, Ohio 43464

Dear Mr. Nicar:

On December 7, 1993, Chemical Waste Management submitted certification reports for the closure of the former Ponds 4, 5 & 7, and for Ponds 11 & 12. The closure plans for Ponds 4, 5 & 7 were approved on December 27, 1984 and March 20, 1987. The closure plan for Ponds 11 & 12 was approved by Ohio EPA on March 31, 1988. The closure of Ponds 4, 5, & 7 was an in place closure which entailed the placement of stabilized sludge into a secured double synthetic lined cell. Stabilized sludge from Ponds 11 & 12 were also placed into the cell. Ponds 11 & 12 were clean closed and backfilled with compacted soils. Ponds 4, 5 & 7 (i.e. the "closure cell") will be monitored for a post closure period of at least 30 years. Ponds 11 & 12 will not undergo post closure monitoring due to "clean closure".

On July 30, 1993, the Ohio EPA conducted a closure certification inspection of the closure cell and the former Ponds 11 & 12. The Agency was also present during all phases of sludge removal and stabilization and cell construction and capping. Based upon our inspections and a review of the certification reports, Chemical Waste Management has closed Ponds 4, 5 & 7 and Ponds 11 & 12 in accordance with the approved plans.

With respect to post closure care of the closure cell, the Agency noted several areas of the cap which are in need of maintenance. These include the following:

The filter cloth at the north base of the cell near the walk-in gate is exposed to the runoff ditch.

Areas of cracking were observed at the base of the east slope. Bare spots were also noted on the east slope.

Cracks are evident at the west hip near the base of the cell.

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AUG
VICKERY

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Repairs to these areas should be made as soon as possible. Please notify the Agency's on site inspector when such improvements have been made. If you should have any questions in this matter, please contact me at 1-352-8461.

Yours truly,

Jeffery A. Steers, R.S.
RCRA Group Leader
Division of Hazardous Waste Management

/rab

pc: Tom Crepeau, DMS, DHWM, CO
Laurie Stevenson, CM&ES, DHWM, CO
Randy Meyer, TAS, DHWM, CO
Chuck Hull, NWDO
Brent Kuenzli, NWDO

CLEAN WATER, INC.

CLOSED LAGOONS
SITE 690

PHASE VB
FINAL REPORT

NOVEMBER 1983

Environmental Testing and Certification Corporation
284 Raritan Center Parkway
Edison, New Jersey 08837

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2.0 FIELD METHODOLOGY

3.0 CHAIN-OF-CUSTODY DOCUMENTATION

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TABLE 1 -- Sample Location and Summary

ATTACHMENT 1 -- Dames & Moore Field Procedures
ATTACHMENT 2 -- Chain-of-Custody and Field Forms
ATTACHMENT 3 -- Methodology
ATTACHMENT 4 -- Analytical Results

1.0 PURPOSE

The purpose of the phase 5b project was to determine if PCB's were present in the area of the closed lagoons at Site 690. Included in these objectives were determinations of PCB levels at three foot depth intervals in the fill material and one sample of the underlying clay.

As part of this project, the U. S. Environmental Protection Agency (USEPA) and the Ohio Environmental Protection Agency (OEPA) were invited to take split samples. It was the intent of the USEPA to analyze certain samples for EP Toxicity and/or dioxin. ETC's objectives included analyzing the split samples for these parameters.

2.0 FIELD METHODOLOGY

Sampling was conducted by ETC and its subcontractor, Dames & Moore (D&M) from May 9, 1983 through May 18, 1983. Samples were collected from closed lagoons 1, 2, 3, 4, 6, 9, 10; the Abandoned Sludge Farm; and areas east of the facility (East Area) and south of the facility (South Area). A backhoe was used to open test pits at the closed lagoons, and samples were collected at three foot depth intervals from the backhoe bucket. Samples of the underlying clay were taken with a thin wall piston tube. Soil samples at the other three areas were taken using the Piston Tube Sampler.

2.1 Sample Point Locations

Approximately two to three sample locations per acre were designated for each closed lagoon. A site map is presented in Figure 1 denoting these sample points. Samples were collected from each location at a minimum of three foot depth intervals. Samples were taken of different layers of the fill material. Occasionally this required taking samples at a greater frequency than one per three feet.

The coding convention for these samples, agreed to by CWI, USEPA, and ETC, was as follows:

```
      CL        -     10      -      3      -        9
(Closed Lagoon) - (Lagoon #) - (Sector #) - (Depth in Feet)
```

Samples were collected from the Abandoned Sludge Farm, East Area and South Area at the sample points designated on the site map (Figure 1). The coding convention for these samples was as follows:

```
Abandoned Sludge Farm:  ASF
East Area:              EA
South Area:             SA

     ASF      -          2          -     0
(Site Code) - (Sample Point #) - (Depth)
```

2.2 Sample Collection

Samples from the closed lagoons were collected by excavating the fill material and opening a test pit. Samples were collected from the backhoe bucket. The bucket was steam cleaned between each test pit and all samples were collected from the center of the bucket to avoid possible contamination from the bucket itself. A new piston tube was used to collect a sample of the underlying clay.

Samples from the Abandoned Sludge Farm, East Area, and South Area were also collected using a piston tube. Detailed procedures and a description of the apparatus is provided in Attachment 1.

2.3 Field Data Records

ETC Chain-of-Custody forms (CC1 and CC2) were used to document sampling events. Field information recorded included the sample point ID code, date, time person who had custody of sample, person who physically collected sample, sample depth (inches), depth to bottom, sampling method, weather and general sample description.

Completed copies of these field records (CC1 and CC2) are presented in the analytical reports for each sample. The CC1 data is also maintained on magnetic tape as part of the data file.

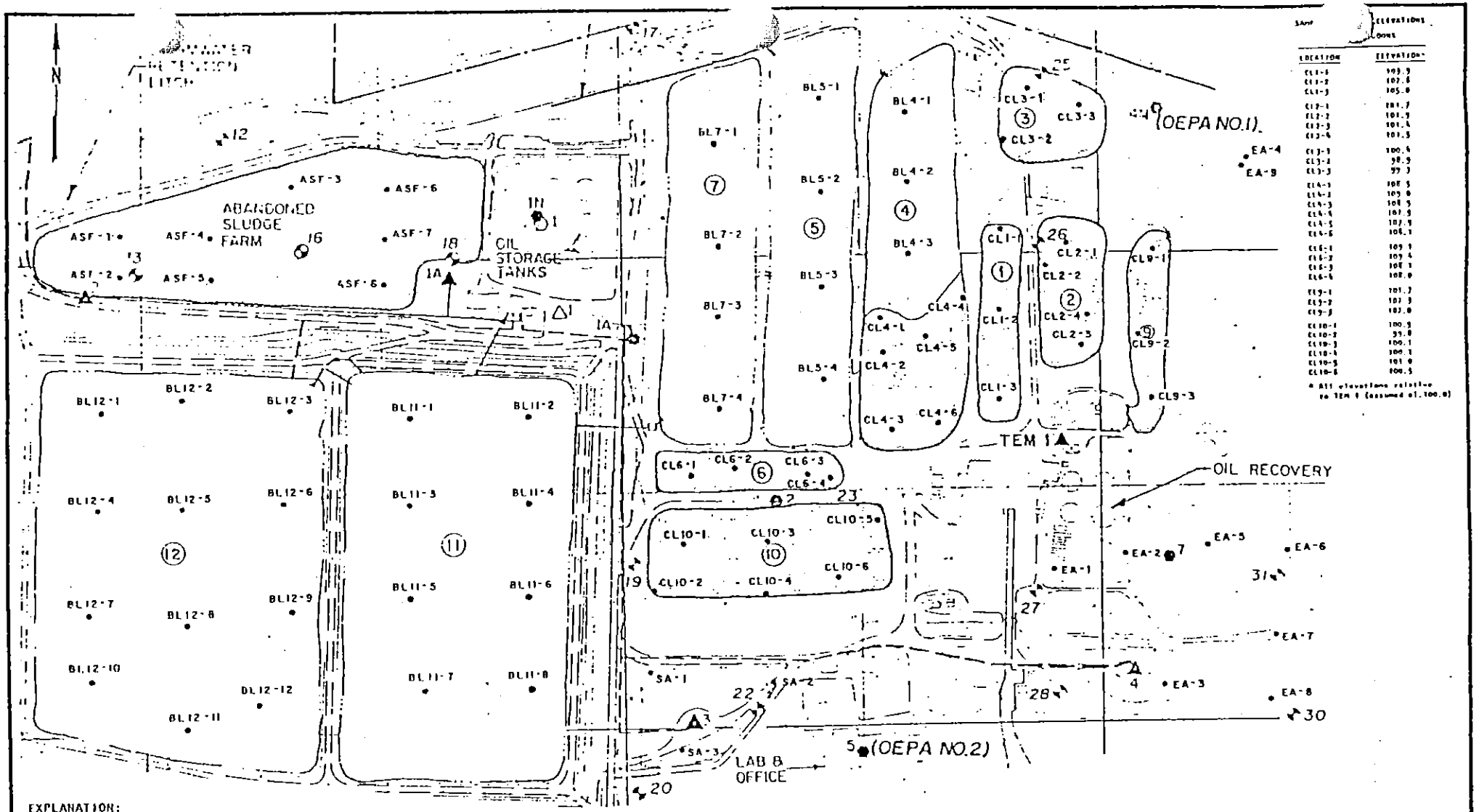
3.0 CHAIN-OF-CUSTODY DOCUMENTATION

Chain-of-Custody and the associated documentation was maintained for each sample. Blank copies of the chain-of-custody form (CC1) and field information form (CC2) are presented as attachments. ETC Sample Shuttles were used to maintain custody from the time the containers left the ETC laboratory in Edison, New Jersey until they were returned to the same location. Shuttles were sealed at the laboratory with a numbered ETC seal and the seal was broken at the Vickery site prior to sample collection. Use of this seal guarantees the integrity of the Shuttle contents during shipment.

Once a person had the sample or sample bottles under custody, they were at all times

- in his/her actual possession; or
- in his/her view, after being in actual possession; or
- in his/her actual possession and then placed in a locked or otherwise secure place to which any access by others was fully recorded.

Before leaving the site, the Shuttles were sealed with a numbered ETC seal and the seal number recorded on the chain-of-custody form. These seals were broken upon receipt at ETC, the seal number verified, and internal chain-of-custody maintained. All chain-of-custody records are presented in the data reports for each sample.



REFERENCE: Base map taken from Facility Location Plan, Project No. 33767, 2/16/83

FIGURE

TABLE 1
SAMPLE POINT SUMMARY

PHASE VB - CLOSED LAGOONS (CL)

SAMPLE POINT CODE	PARAMETERS
CL1-1-0	PCB
CL1-1-3	PCB
CL1-1-6	PCB
CL1-1-9	PCB
CL1-1-12	PCB, EP TOX
CL1-1-12.5C (clay)	PCB, EP TOX
CL1-2-0	PCB
CL1-2-3	PCB
CL1-2-6	PCB
CL1-2-10	PCB, EP TOX
CL1-2-11C (clay)	PCB
CL1-3-3	PCB
CL1-3-6.5	PCB
CL1-3-9	PCB, DIOXIN
CL1-3-11C (clay)	PCB
CL2-1-0	PCB
CL2-1-3	PCB
CL2-1-6	PCB
CL2-1-9	PCB
CL2-1-12	PCB
CL2-1-12C (clay)	PCB
CL2-2-0	PCB
CL2-2-3.5	PCB
CL2-2-6	PCB
CL2-2-9	PCB
CL2-2-12	PCB, EP TOX
CL2-2-12C (clay)	PCB
CL2-3-0	PCB
CL2-3-3	PCB
CL2-3-4	PCB, EP TOX
CL2-3-6	PCB, EP TOX, DIOXIN
CL2-3-10	PCB, EP TOX
CL2-3-11	PCB
CL2-3-11C (clay)	PCB

CL2-4-0	PCB
CL2-4-3	PCB
CL2-4-7	PCB
CL2-4-10	PCB
CL2-4-12	PCB, EP TOX
CL2-4-12C (clay)	PCB, EP TOX
CL3-1-0	PCB
CL3-1-3	PCB, Dioxin
CL3-1-4C (clay)	PCB
CL3-2-0	PCB
CL3-2-3	PCB
CL3-3-0	PCB
CL3-3-3	PCB, EP TOX
CL3-3-3.5 (clay)	PCB
CL3-3-6C (clay)	PCB
CL4-1-0	PCB
CL4-1-3	PCB
CL4-1-6	PCB, EP TOX
CL4-1-10	PCB
CL4-1-12 (no clay)	PCB
CL4-2-0	PCB
CL4-2-3	PCB
CL4-2-6	PCB, DIOXIN
CL4-2-9	PCB
CL4-2-13	PCB
CL4-2-16	PCB, EP TOX
CL4-2-17C (clay)	PCB
CL4-3-3	PCB
CL4-3-6	PCB
CL4-3-9	PCB
CL4-3-13C (clay)	PCB
CL4-3-15C	PCB
CL4-4-1	PCB
CL4-4-3	PCB
CL4-4-6	PCB
CL4-4-9	PCB
CL4-4-12C (clay)	PCB
CL4-5-0	PCB
CL4-5-3	PCB
CL4-5-6	PCB

CL4-5-10	PCB
CL4-5-12	PCB
CL4-5-16	PCB
(no clay)	
CL4-6-3	PCB
CL4-6-4	PCB
CL4-6-6	PCB
CL4-6-9	PCB
CL4-6-12	PCB
CL4-6-15C (clay)	PCB
CL6-1-4	PCB
CL6-1-6	PCB
CL6-1-9	PCB
CL6-1-12	PCB
CL6-1-13	PCB
CL6-1-13C (clay)	PCB
CL6-2-3.5	PCB
CL6-2-6.5	PCB
CL6-2-9.5	PCB
CL6-2-12	PCB
CL6-2-14.5	PCB
CL6-2-15C (clay)	PCB
CL6-3-4	PCB
CL6-3-6	PCB
CL6-3-9	PCB, EP TOX
CL6-3-12C (clay)	PCB
CL6-4-3	PCB
CL6-4-6	PCB
CL6-4-9	PCB
CL6-4-11.5	PCB
CL6-4-12C (clay)	PCB, DIOXIN
CL9-1-0	PCB
CL9-1-2	PCB
CL9-1-3	PCB
CL9-1-4	PCB
CL9-1-6	PCB, DIOXIN
CL9-1-8	PCB, EP TOX
CL9-1-10C (clay)	PCB
CL9-2-0	PCB
CL9-2-3	PCB
CL9-2-7	PCB

CL9-2-9	PCB
CL9-2-9 (aqueous)	PCB
CL9-3-0	PCB
CL9-3-3	PCB
CL9-3-6	PCB
CL9-3-9	PCB, EP TOX
CL9-3-11C (clay)	PCB
CL10-1-0	PCB
CL10-1-3	PCB
CL10-1-5	PCB
CL10-1-6	PCB
(no clay)	
CL10-2-0	PCB
CL10-2-3	PCB
CL10-2-6	PCB
CL10-2-9	PCB
CL10-2-12	PCB
CL10-2-12.5C (clay)	PCB
CL10-3-0	PCB
CL10-3-3	PCB
CL10-3-6	PCB
CL10-3-8.5	PCB, EP TOX
CL10-3-11	PCB
(no clay)	
CL10-4-0	PCB
CL10-4-3	PCB
CL10-4-6	PCB
CL10-4-6.5C (clay)	PCB
CL10-5-0	PCB
CL10-5-3	PCB, DIOXIN
CL10-5-5.5	PCB
CL10-5-7.5	PCB
CL10-5-11C (clay)	PCB
CL10-6-0	PCB
CL10-6-3	PCB
CL10-6-6	PCB
CL10-6-10	PCB
CL10-6-11C	PCB
ASF1-0	PCB
ASF2-0	PCB, EP TOX
ASF3-0	PCB

ASF4-0	PCB
ASF5-0	PCB
ASF6-0	PCB, EP TOX
ASF7-0	PCB
ASF8-0	PCB
EA1-0	PCB
EA2-0	PCB
EA3-0	PCB
EA4-0	PCB
EA5-0	PCB
EA6-0	PCB
EA7-0	PCB
EA8-0	PCB
EA9-0	PCB
RIP-4	PCB
RIP-5	PCB
RIP-7	PCB
RIP-11	PCB
SA1-0	PCB
SA2-0	PCB
SA3-0	PCB

Attachment 1

Dames & Moore Field Procedures

CLOSED LAGOONS: GENERAL SAMPLING PROCEDURES

Dames & Moore was retained by Environmental Testing and Certification (ETC) to perform on site sampling of sludge from the open lagoons at the Chemical Waste Management Incorporation (CWMI) Vickery, Ohio disposal facility. The scope of work was expanded to include subsurface characterization of the closed waste lagoons and landfarm areas, according to the sampling plan outlined in our letter of April 13, 1983. The purpose of the characterization was to establish any spatial distribution of PCBs in materials used to close several waste lagoons.

The sampling plan was formulated on the basis of obtaining samples from at least two locations per acre in the closed lagoon areas, and at least one location per acre in the landfarm areas. It was assumed that for the closed lagoons a backhoe could be used to recover samples down to just below the lagoon bottoms. Samples were to be taken at 3-foot intervals and at significant changes in stratigraphy. A sample of the native bottom clays was also to be taken at each location. Samples in the landfarm area were to be taken at 1- or 2-foot intervals to a depth of approximately 3 feet.

Each of closed lagoons 1, 2, 3, and 9 were broken up into three relatively equal sectors, with one sampling location in each, as shown in Figure 1. Lagoon 6 was actually split in half by a low dike, and was therefore divided into four sectors, two on each side of the middle dike. Lagoons 4 and 10 were each divided into six sectors. Figure 1 illustrates the planned locations of the sampling locations, however, some alterations in location became necessary due to the logistics of moving in excavation equipment,

and in view of the fill material anticipated. Discussions with CWMI employees identified potential problem areas where large boulders or concrete slabs had been buried. The sampling locations were adjusted to maximize the chances of extending the trench down to native clay.

Sampling Equipment

Sampling was performed by a backhoe or a deep trenching hoe having a deeper reach than the backhoe. The backhoe was used to dig the trenches in closed lagoons 1, 2, 3, and 9. The deep trenching hoe was used for closed lagoons 4 and 6 since the bottom of the lagoon was beyond the reach of the backhoe. It was also used for lagoon 10 as a matter of convenience.

The samples were taken from the middle of the hoe bucket with a steel trowel. Material was sampled which had not contacted the bucket itself, and placed in a stainless bowl. Care was taken not to cross-contaminate the sample by handling with unwashed tools or gloves. The bottles were filled from the bowl utilizing the same trowel and a funnel.

Piston tube cores were taken of the native clays beneath the bottom level of the lagoon. The piston tube sampler is illustrated in Figure 2. In cases where groundwater filled the trench, a prepared brass piston tube was used to preclude the possibility of contamination of the clay core by the groundwater. The prepared tube was made by pouring molten parafin into a plastic end cap, inserting the bit end of the tube and taping the cap to the tube with electrical tape. The drive head is fitted with an O-ring which keeps water from contaminating the inside of

the tube. All pipe threads were sealed with teflon tape when a prepared tube was used.

General Procedure

Sampling locations for each closed lagoon were staked out using a site location map provided by CWMI. First, the lagoon boundaries were staked out by scaling from prominant landmarks on the map. These boundaries were located from the landmarks using a surveying wheel to measure horizontal distances and small orange flags to mark the corners. Once the lagoon boundaries were located, the sector lines were established and sampling locations marked. The boundary marks were subsequently removed to avoid confusion. Once the locations were established according to the plan illustrated in Figure 1, the locations were reviewed in the field with CWMI employees to identify potential problems reaching the bottom of the fill material. Shifts in location were made accordingly.

The backhoe bucket was initially prepared by steam cleaning, using a steam jenny and municipal water from the Town of Clyde, trucked onto the site in a 500-gallon tank mounted on a pick-up truck. Employees of CWMI operated and cleaned the backhoe bucket between each sampling location.

To start each sampling location, typically the hoe was used to scrape the top of the ground surface, and a grab sample was taken directly with a steel trowel, and transferred to a stainless steel bowl. In locations where the surface was comprised of coarse gravel, no sample was taken. The sample was mixed and split between ETC and USEPA, using the trowel and a funnel to

fill the sample jars. Between each sample the trowel, bowl, and funnel were scraped clean and final rinsed with hexane followed by methanol and finally offsite potable rinse water, so as to prevent cross contamination of the samples.

As the digging progressed, the trench was logged descriptively by a Dames & Moore engineer. The logs included detailed descriptions and depths of each sample taken, general observations of the trench, and depth and recovery of the clay core taken in the native clays. Any problems incurred during the sampling were also noted.

Samples were taken at 3-foot intervals or at significant changes in stratigraphy as directed by a Dames & Moore engineer. The samples were taken from the backhoe bucket with the trowel, using care to take portions of material which had not contacted the bucket. The sample was collected on the stainless steel bowl so that digging could proceed while the sample jars were being filled. All samples were taken and handled by Dames & Moore personnel only.

The excavation continued until native clay materials were encountered. A piston tube core was taken using the piston tube sampler shown in Figure 2. At locations where groundwater was seeping into the trench, a prepared tube was used. The cores were taken while standing at the side or back of the trench when the sidewalls were stable. In locations where there was danger of caving, a long aluminum grate was placed across the trench using the backhoe. The sampler was lowered into the trench attached to sections of 1-inch pipe which were preassembled. A drive hammer sliding on a section of pipe was attached and the

tube was driven 12 to 18 inches into the clay. The core was sheared off at the base by twisting the pipe clockwise with a pipe wrench. Two persons using pipe wrenches to grab the pipe were required to withdraw the clay core where the sidewall conditions were stable. In most unstable situations, a pipe wrench was wedged against the backhoe bucket which was used to withdraw clay core. The tube was removed from the drive head, and 1/4 inch of clay was shaved off the lower end to remove any material which may have been contaminated by groundwater, and to allow room for a wax seal. Molten parafin was poured into both ends, and allowed to harden. The location identification and core depth were scratched into the tube with a knife, and the core tube stored in Dames & Moore custody until extrusion.

Upon completing the hole, the backhoe bucket was thoroughly cleaned with a steam jenny, soap, and water. Each trench was immediately backfilled by CWMI employees using a small dozer or a front end loader.

Problems/Deviations from General Procedure

The closed lagoons were samples in the following order: CL2, CL9, CL3, CL1, CL6, CL10, and CL4. The alterations from the general procedure, and problems encountered are highlighted for each lagoon in numerical order below. Sampling chain of custody records were maintained by Mr. John Snodgrass of ETC for closed lagoons 1, 2, 3, and 9. A Dames & Moore technician assumed responsibility for maintaining sample records for the remaining lagoons. A summary of the sample data is shown in Table 1. Several gaps in the data remain which could not be reconstructed with records provided by ETC.

- Closed Lagoon 1: This closed lagoon was flooded in the central eastern part, with water. This water was pumped out in anticipation of sampling, however, the sample locations were slightly altered to enable the backhoe to work on stable ground. No surface sample was taken at CL1-3 due to the presence of coarse limestone gravel.

- Closed Lagoon 2: The piston tube sampler was pushed into the clay with the backhoe bucket and withdrawn with the bucket at locations CL-1 and CL-2. One of the pipe sections buckled and broke under the pressure of the backhoe bucket during sampling with the piston tube sampler. All other clay cores were taken using the hammer. Groundwater was encountered at locations CL2-2, CL2-3, and CL2-4. The hole at CL2-3 constantly caved in from the sides, therefore, no attempt was made to obtain a clay core. Mr. John Snodgrass of ETC requested that an additional location be sampled, designated CL2-4.

- Closed Lagoon 3: This lagoon proved to be very shallow with only samples taken at the surface and 3 feet. At location CL3-3 two clay cores were taken, the first just beneath the sludge line at 3.5 feet. The second core was taken at 5.5 feet at the request of Mr. Lester Franks of CWMI to insure native clays were sampled.

- Closed Lagoon 4: Location CL4-1 was dug in a very loose sludge clay matrix which constantly flowed back into the hole. Due to the instability of the trench, native clay was not reached before the excavation was terminated. Groundwater was encountered at locations CL4-2, CL4-3, CL4-5, and CL4-6. Groundwater at

location CL4-6 left a yellow stain, and contained black oil globules. A dike was built around the borrow pit using the front end loader to contain groundwater carried along in the bucket. The dammed water was siphoned off into a CWMI tank truck. A water sample was taken at location CL4-6 using a bottle to take water from the center of the hoe bucket. Caving became a problem. Caving at location CL4-5 prevented successful recovery of a native clay core.

- Closed Lagoon 6: This lagoon was originally split in two by a berm, whereby two excavations in each half were made. No surface samples were taken since the top foot consisted of coarse angular limestone gravel. Groundwater was encountered at locations CL6-1, CL6-2, and CL6-3. Construction debris and gravel were encountered at location 2, causing caving of the sidewalls. The hole was too big to use the grating for taking the clay core, consequently the clay core was attempted by a Dames & Moore engineer and a CWMI employee suspended above the hole in the hoe bucket. A cave-in midway through obtaining the core broke off the pipe down in the hole. A Dames & Moore engineer was lowered into the hole and retrieved the pipe and clay core by wedging a pipe wrench with the pipe against the bucket, thus allowing the bucket to withdraw the tube.

- Closed Lagoon 9: In this lagoon we encountered extensive construction debris, reportedly the remains of a local county courthouse. At location CL9-1, further penetration was impossible after the first 3 feet. The hole was relocated approximately 25 feet to the east, and sampling resumed at 3 feet. Groundwater seepage was abundant from around huge concrete slabs, carrying with it oil and a purple fluid. The clay core

was taken using a prepared piston tube. Groundwater was also encountered in locations CL9-2 and CL9-3. Caving and the presence of concrete slabs too large to move prevented obtaining a clay core from location 2.

- Closed Lagoon 10: Closed lagoon 10 was a shallow lagoon but sampled with the deep trenching backhoe as a matter of convenience. At location CL10-1, a clay core was attempted with no recovery. The sidewalls became increasingly unstable, threatening the machine, therefore, no further attempts at obtaining a core were made. A 3-foot sludge layer was encountered at location CL10-3 at 8.5 feet. This layer became very unstable and the hoe began to sink into the pit. The hole was abandoned without reaching native clay. Three attempts were made in obtaining a clay sample at location CL10-6 before a successful core was withdrawn.

Abandoned Sludge Farm and Landfarm Areas

Three landfarm areas were to be sampled at 1 or 2 foot intervals down to a depth of 3 feet in locations shown in Figure 3. This plan was modified in the course of conversations with an ETC representative to only include one sample core at each location.

The landfarm areas were sampled using the piston tube sampler and one section of 1-inch pipe, plus the hammer section. The core tube was hammered into the ground from the surface, and the core sheared off at the bottom by rotating the pipe shaft clockwise with a wrench. Two people were typically required to extract the full tube from the ground. A new clean tube was used at each location. After extraction, the sample location code was

scratched on the tube, and the drive head cleaned with hexane, methanol, and potable offsite water. Where water covered the surface, a prepared tube was used.

- East Area Landfarm: At location EA-1, the piston tube had to be dug out of the ground with a shovel. One additional sample (EA-9) was added by the Dames & Moore engineer in a marshy section of the north end of the east area. Samples were taken both on the berms and in the landfarm itself, since the berms were made of material gleaned from the landfarm itself. Locations EA-5 and EA-9 were submerged.

- South Area Landfarm: Three samples were taken at representative locations within the landfarm area. Location SA-1 was submerged.

- Abandoned Sludge Farm: The entire abandoned sludge farm was submerged under runoff water. In the area of ASF-6 (see Figure 3), the water was as much as 3 to 4 feet deep. This landfarm was sampled using the piston tube sampler and prepared tubes. The prepared tubes and all tools were placed in a fiberglass boat. Two Dames & Moore engineers in hip waders performed the sampling as described above, pulling the boat along with them. Coordinate flags were set out on the berms by a Dames & Moore technician and USEPA representatives. A sampling location was obtained by lining up at the intersection of imaginary lines drawn between the flags. The actual locations of the samples are shown in Figure 3.

Horizontal and Vertical Control

Following the excavation at each location, the excavation site was located using a tape or surveying wheel to measure horizontal distances from nearby landmarks. The actual locations of each excavation are plotted in Figure 3. Vertical control was run using a contractors level provided by CWMI. Each elevation circuit was closed, such that the error of each closure could be evaluated. An arbitrary datum was assigned to the northwest corner of the concrete tank slab shown in Figure 3. The resulting elevations of each sampling location of the closed lagoons are listed in Figure 3. Only horizontal control was measured for the landfarm areas.

Clay Core and Landfarm Sample Extrusion

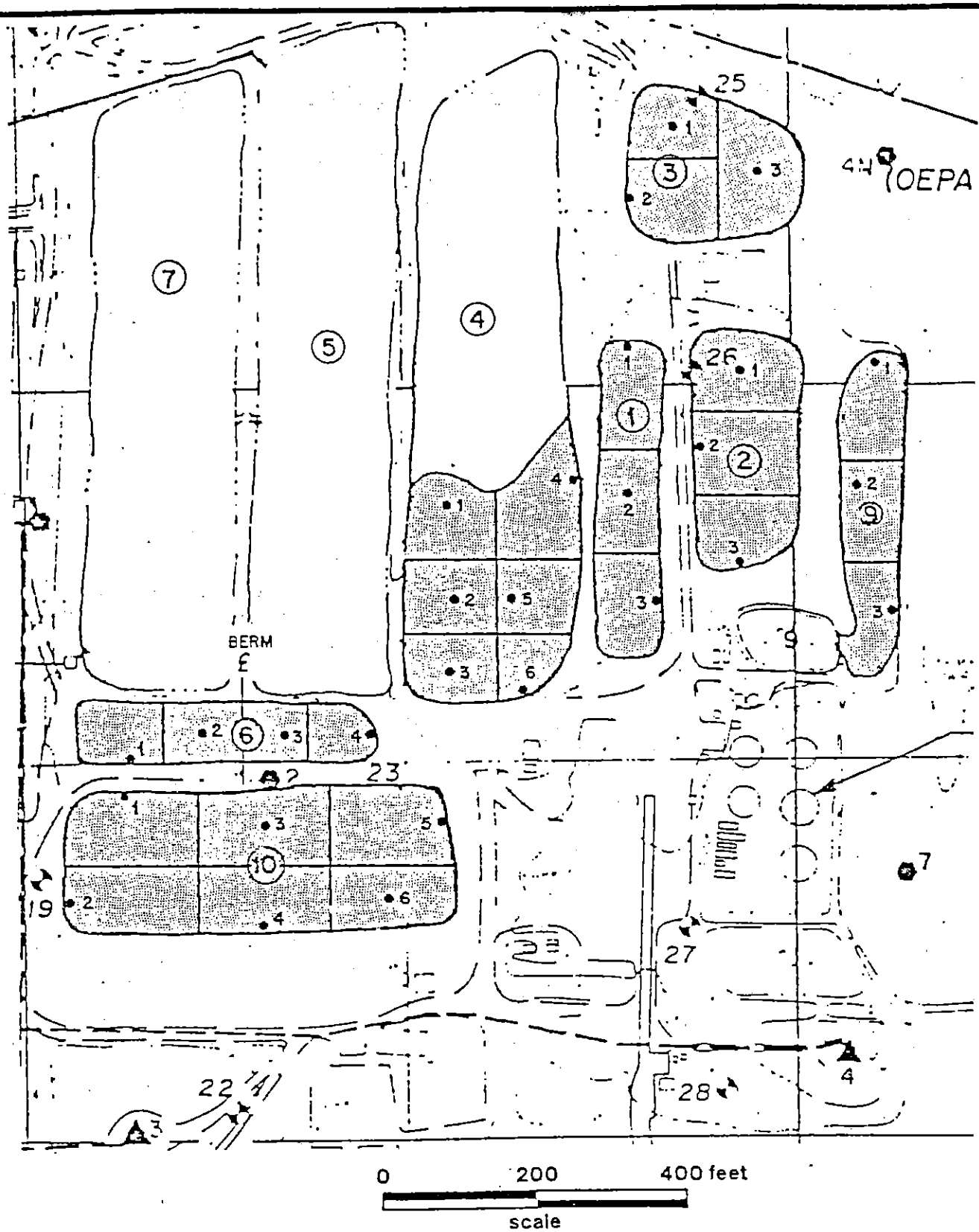
Each clay core from the closed lagoon was sealed with parafin in both ends, and were stored in a trailer on site until they were extruded. The landfarm samples were locked in the same trailer overnight before being extruded. The landfarm samples were not sealed with wax.

The clay cores and landfarm samples were all extruded utilizing a hydraulic ram specifically designed for extruding samples from the Dames & Moore sampling equipment. The core was extruded onto a fresh piece of aluminum foil. A spatula was used to shave the outside of the core, leaving virgin material untouched by the piston tube. Both ends were cut off with a soil knife, and the samples split longitudinally into quarters. Two quarters went to ETC and two quarters went to USEPA, for a replicate split. The soil tools were cleaned between cores with hexane followed by

methanol and potable water. Even the gloves of the engineer handling the cores were cleaned between cores to minimize the chance for cross contamination. All records for ETC were maintained by a Dames & Moore technician.

TABLE 1
CLOSED LAGOON SAMPLING DATA

LOCATION CODE	TOTAL EXCAVATION DEPTH	# SAMPLES (NOT CLAY)	CLAY ZONES TAKEN	CLAY ZONES DEPTH	CLAY ZONES ETC ID #	SAMPLES: ETC ID # (DEPTH)	COMMENTS
CL-1-1	12.5	5	Yes	12.5	700	619(0'); 621(3'); 620(6'); 622(9'); 741(12')	741 - EP TOX
CL-1-2	11.0	4	Yes	11.0	791	(0'); (3'); (6'); (10')	(10') - EP TOX
CL-1-3	11.0	3	Yes	11.0		(3'); (6'); (10')	(10') - Dioxin
CL-2-1	12.0	5	Yes	12.0	709	750(0'); 759(3'); 760(6'); 761(9'); 762(12')	
CL-2-2	12.0	5	Yes	12.0	1023	755(0'); 756(3'); 757(6'); 753(9'); 754(12')	754 - EP TOX
CL-2-3	11.0	5	Yes	11.0	790	750(0'); 751(3'); 748(4'); 749(6'); 752(10')	752 - EP TOX 749-Dioxin; 751-Water sample
CL-2-4	12.0	5	Yes	12.0	1025	774(0'); 773(3'); 777(7'); 775(10'); 776(12')	776 - EP TOX
CL-3-1	3.5	2	Yes	3.5	1024	794(0'); 796(3')	
CL-3-2	6.5	2	Yes	6.5		793(0'); 795(3')	
CL-3-3	5.5	2	Yes	3.5		797(0'); 618(3')	618 - EP TOX
			Yes	5.5			
CL-4-1	11.5	5	No	-	-	1051(0'); 1052(3'); 1053(6'); 1054(10'); 1055(12')	1053 - EP TOX
CL-4-2	17.0	6	Yes	17.0	645	1006(0'); 1007(3'); 1008(6'); 1009(9'); 1010(13'); 1001(16')	1010,1001 - EP TOX 1000 - Dioxin
CL-4-3	15.0	4	Yes	15.0	646	1020(3'); 1019(6'); 1018(9'); 644(13')	644 - EP TOX
CL-4-4	12.0	4	Yes	12.0	647	1031(1'); 1032(3'); 1033(6'); 1034(9')	
CL-4-5	17.0	6	No	-	-	1002(0'); 1003(3'); 1004(6'); 1005(10'); 1016(12'); 1017(16')	
CL-4-6	15.0	5	Yes	15.0	643	1026(3'); 1027(4'); 1028(6'); 1029(9'); 1030(12')	1027-Water sample
CL-6-1	13.0	5	Yes	13.0	1015	770(4'); 642(6'); 641(9'); 640(12'); 639(13')	
CL-6-1	15.0	5	Yes	15.0	1014	630(3'); 617(6'); 616(9'); 615(12'); 614(14')	
CL-6-3	12.0	3	Yes	12.0	1013	613(4'); 607(6'); 606(9')	606 - EP TOX
CL-6-4	12.0	4	Yes	12.0	1012	605(3'); 604(6'); 603(9'); 612(11')	612 - Dioxin
CL-9-1	10.0	6	Yes	10.0	1022	772(0'); 771(2'); 770(3'); 769(4'); 768(6'); 766(8')	766 - EP TOX; 768 - Dioxin; 771, 769-Water sample
CL-9-2	9.0	5	No	-	-	764(0'); 767(3'); 765(7'); 763(9'); 702(9')	702-Water sample
CL-9-3	11.0	4	Yes	11.0	1021	674(0'); 673(3'); 675(6'); 676(9')	676 - EP TOX
CL-10-1	6.0	4	No	-	-	636(0'); 635(3'); 634(5'); 633(6')	
CL-10-2	12.0	5	Yes	12.0	1011	611(0'); 610(3'); 609(6'); 608(9'); 637(12')	
CL-10-3	11.0	5	No	-	-	746(1'); 747(3'); 623(6'); 624(8'); 625(11')	- EP TOX
CL-10-4	6.5	3	Yes	6.5		743(0'); 744(3'); 745(6')	
CL-10-5	11.0	4	Yes	11.0		626(0'); 627(3'); 798(5'); 799(7')	799-Water sample 627 - Dioxin
CL-10-6	11.0	4	Yes	11.0		800(1'); 801(3'); 802(6'); 628 (10')	



EXPLANATION:

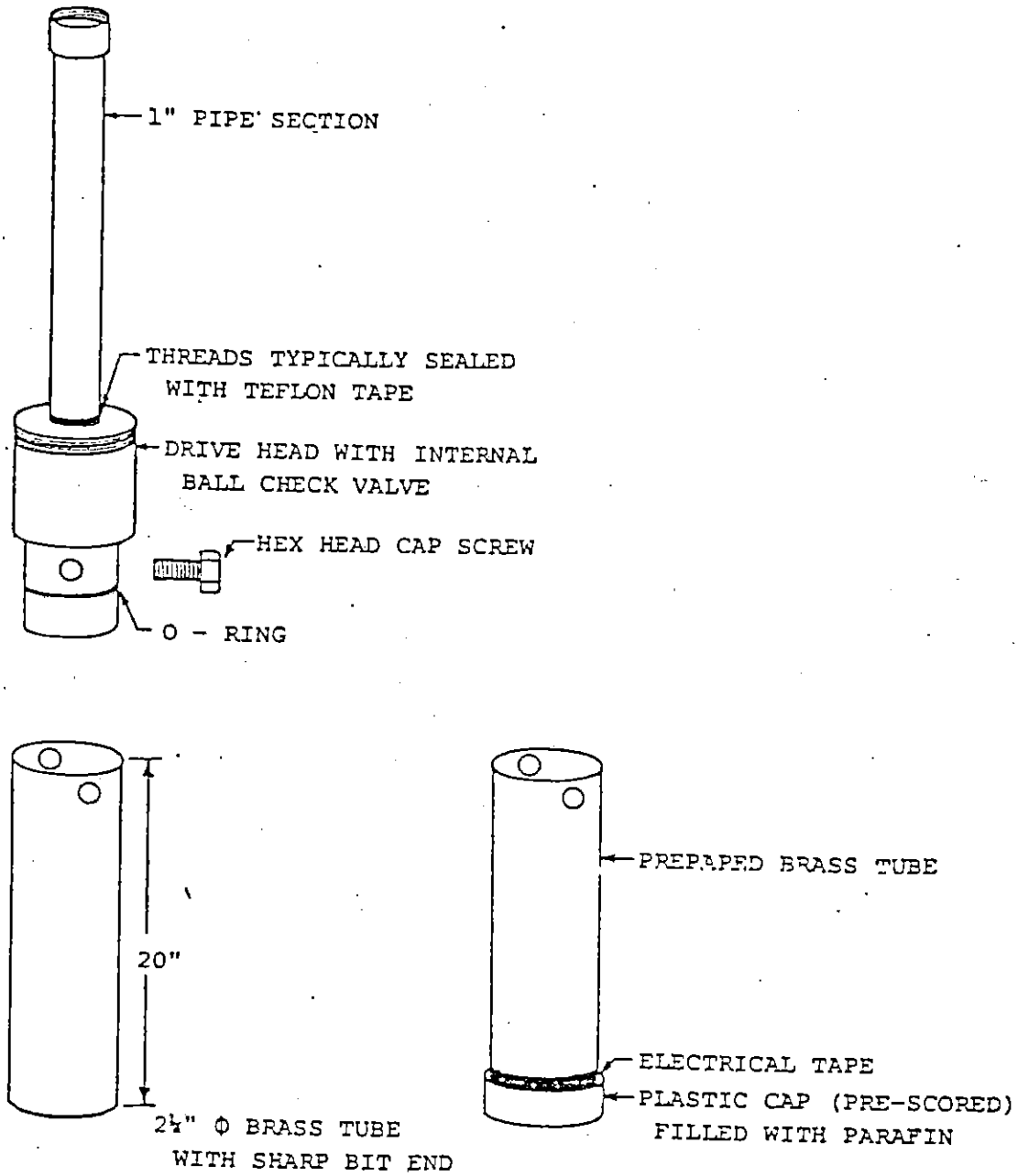
- PROPOSED SAMPLING LOCATION

PROPOSED SAMPLING LOCATIONS

Reference: Base map taken from Facility Location Plan, Project No. 33767, 2/16/83

DAMES & MOORE

FIGURE 1



PISTON TUBE SAMPLER

DAMES & MOORE

FIGURE 2

Attachment 2

Chain-of-Custody and Field Forms

ETC ENVIRONMENTAL TESTING and CERTIFICATION

CHAIN OF CUSTODY FORM (CC1)

ETC Sample #: _____
Seal Date: _____
Sealed By: _____

SHIP TO:

Company: _____ Attn.: _____
Facility/Site: _____
Address: _____ Phone: ( ) -

SAMPLE IDENTIFICATION

Facility/Site Code: | | | | | | | | | |

Source Codes:

Well — (W)	River/Stream — (R)	Surface Impoundment — (I)	Lake/Ocean — (L)
Soil — (S)	Bottom Sediment — (B)	Pretreatment Facility — (P)	Treatment Facility — (T)
Outfall — (O)	Generation Point — (G)	Leachate Collection Sys. — (C)	Other — (X)

Source Code (from above)	Your Sample Point ID (left justify)	Start Date (mo/day/yr)	Start Time (2400 hr. clock)	Elapsed Hours (composite)
Example: W	1101 J2613P	051581	0910	13

SHUTTLE CONTENTS

Sample Bottle	Condition	Sample Bottle	Condition

CHAIN OF CUSTODY CHRONICLE

1. Shuttle Opened By: (print) _____ Date: _____ Time: _____
   Signature: _____ Seal #: _____ Intact: _____

2. I have received these materials in good condition from the above person.
   Name: _____ Signature: _____
   Date: _____ Time: _____ Remarks: _____

3. I have received these materials in good condition from the above person.
   Name: _____ Signature: _____
   Date: _____ Time: _____ Remarks: _____

4. I have received these materials in good condition from the above person.
   Name: _____ Signature: _____
   Date: _____ Time: _____ Remarks: _____

5. Shuttle Sealed By: (print) _____ Date: _____ Time: _____
   Signature: _____ Seal #: _____

ETC USE ONLY Opened By: _____ Date: _____ Time: _____
Seal #: _____ Condition: _____

ETC ENVIRONMENTAL TESTING and CERTIFICATION

ETC Sample No.: _____

SAMPLE POINT INFORMATION FORM (CC2)

FIELD MEASUREMENT DATA

Select up to 3 parameters to be recorded by entering the appropriate code letter in the first space for each of the 3 data entry fields provided. Enter the actual measurement data (in the units specified) for the three parameters you have selected.

PARAMETERS		ACTUAL (left justify)	EXAMPLE
Flow (CFS)	A		C25
Volume (Gal)	B		
Sample Depth (Ft)	C		
Depth to Water (Ft)	D		F50
Discharge Rate (GPM)	E		
Depth to Bottom (Ft)	F		
Event Time (2400-Hr Clock)	G		G1103
Depth to Screen (Ft)	H		

FIELD TEST DATA

DO (Mg/L) _____ Sample Temp. (°C) _____

pH _____ Single Measurement — _____ 2nd of Quadruplicate — _____ 3rd of Quadruplicate — _____ 4th of Quadruplicate

Specific Conductance (uMHOS/CM) _____ Single Measurement — _____ 2nd of Quadruplicate — _____ 3rd of Quadruplicate — _____ 4th of Quadruplicate

THE FOLLOWING DATA IS FOR YOUR RECORDS ONLY

SAMPLING METHOD (choose one)

AIR-LIFT PUMP ( )
AUGER ( )
BAILER ( )
BOTTLE ( )
COLIWASA ( )
DIPPER ( )
KEMMERER ( )
NISKIN ( )
PERISTALTIC PUMP ( )
PETERSEN ( )
PISTON PUMP ( )
SCOOP/SHOVEL ( )
SQUEEZE PUMP ( )
SUBMERSIBLE PUMP ( )
SUCTION LIFT PUMP ( )
SURBER ( )
THIEF ( )
TRIER ( )
VEHMEYER ( )
OTHER _____

SAMPLE TYPE (choose one)

GRAB ( ) COMPOSITE ( ) OTHER ( )

_____ (describe) _____ (describe)

WEATHER _____ (describe)

SAMPLE DESCRIPTION (e.g., color, odor) _____ (describe)

Form Prepared By: _____ (name (print))

Employer: _____

ETC Form CC2 6/1/82

Attachment 3

Methodology

METHODOLOGY

The methods employed in the analysis of your soil samples are established EPA methods taken from the "Manual of Analytical Methods for the Analysis of Pesticide Residues in Human and Environmental Samples", May 1979. The soil method can be summarized as follows: A weighed amount of air dried sample, approximately 2 grams, is soxhlet extracted for 5 hours with 1:1 acetone/hexane solution. The extract is dried and concentrated to approximately 3 ml. The concentrated extract is transferred to a silica gel column and eluted with hexane. The eluate is concentrated to a final volume of 1 ml and injected into a gas chromatograph equipped with a ^{63}Ni electron capture detector.

The GC operating parameters were as follows:

COLUMN

6' x 4mm glass 1.5% SP-2250 & 1.95% SP-2401
Supelcoport 100/120 mesh

CARRIER FLOW

60ml/min. Argon/Methane

SEPTUM PURGE

5ml/min. Argon/Methane

COLUMN OVEN

200° C

INJECTOR TEMPERATURE

225° C

DETECTOR TEMPERATURE

300° C

METHODOLOGY

The methods employed in the analysis of your water sample are established EPA methods taken from the "Manual of Analytical Methods for the Analysis of Pesticide Residues in Humans and Environmental Samples," June 1980. The water method can be summarized as follows: A measured volume of sample, approximately 500 ml, to which sodium sulfate has been added, is extracted with methylene chloride. The methylene chloride extract is dried and concentrated to approximately 1 ml. The concentrated extract is transferred to a silica gel column and eluted with hexane. The eluate is concentrated to a final volume of 1 ml and injected into a gas chromatograph equipped with a ^{63}Ni electron capture detector.

The GC operating parameters were as follows:

COLUMN

6' x 4mm glass 1.5% SP-2250 & 1.95% SP-2401
Supelcoport 100/120 mesh

CARRIER FLOW

60ml/min. Argon/Methane

SEPTUM PURGE

5ml/min. Argon/Methane

COLUMN OVEN

200° C

INJECTOR TEMPERATURE

225° C

DETECTOR TEMPERATURE

300° C

Attachment 4

Analytical Results

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

July 25, 1983
Page 1

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below	
ETC Sample No.	*Company*	*Facility*	*Sample Point*	*Date*

rameters	*Units*	*Sample Points, Sampling Dates, and ETC Sample No.'s*							
		ASF1-0 830518 C3460	ASF2-0 830518 C3471	ASF3-0 830518 C3461	ASF4-0 830518 C3462	ASF5-0 830518 C3451	ASF6-0 830518 C3470	ASF7-0 830518 C3452	ASF8-0 830518 C3453
ıscellaneous Parameters									
·oclor 1242	mg/kg	<50	<12.5	<5	<5	<25	<5	<5	<5
·oclor 1254	mg/kg	<5	<5	<5	<5	<5	<5	<5	7.7
·oclor 1260	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5

·lnotes: BMDL=Belo od Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

August 25, 1983
Page 1

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below
ETC Sample No.	Company	Facility	Sample Point / Date

		Sample Points, Sampling Dates, and ETC Sample No.'s							
arameters	Units	ASF6-0 830518 C3470	ASF2-0 830518 C3471						
iscellaneous Parameters									
.4,5-TP (Silvex)	mg/l	<1	<1						
.4-D	mg/l	<10	<10						
rsenic	mg/l	<0.2	<0.2						
arium	mg/l	<5	<5						
admium	mg/l	<0.8	<0.8						
hromium	mg/l	<1	<1						
ndrin (GC)	mg/l	<0.02	<0.02						
ead	mg/l	<2	<2						
indane (GC)	mg/l	<0.4	<0.4						
ercury	mg/l	<0.002	<0.002						
ethoxychlor (GC)	mg/l	<10	<10						
elenium	mg/l	<0.2	<0.2						
ilver	mg/l	<0.5	<0.5						
oxaphene (GC)	mg/l	<0.5	<0.5						

otes: BMDL=Below od Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

August 23, 1983
Page 1

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below	
ETC Sample No.	*Company*	*Facility*	*Sample Point*	*Date*

arameters	Units	EA1-0 830518 C3458	EA2-0 830518 C3467	EA3-0 830518 C3459	EA4-0 830518 C3456	EA5-0 830518 C3466	EA6-0 830518 C3446	EA7-0 830518 C3455	EA8-0 830518 C3454
		Sample Points, Sampling Dates, and ETC Sample No.'s							
iscellaneous Parameters									
roclor 1242	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5
roclor 1254	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5
roclor 1260	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5

Notes: BMDL=Below Method Detection Limit NO=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below
ETC Sample No.	*Company*	*Facility*	*Sample Point* / *Date*

ameters	Units	Sample Points, Sampling Dates, and ETC Sample No.'s							
		EA9-0 830518 C3457							
scellaneous Parameters									
oclor 1242	mg/kg	<5							
oclor 1254	mg/kg	<5							
oclor 1260	mg/kg	<5							

otes: BMDL=Below M d Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

July 25, 1983
Page 1

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below	
ETC Sample No.	Company	Facility	Sample Point	Date

		Sample Points, Sampling Dates, and ETC Sample No.'s							
arameters	Units	RIP-4 830525 C3987	RIP-5 830525 C3989	RIP-7 830525 C3988	RIP-11 830525 C3990				
iscellaneous Parameters									
roclor 1242	mg/kg	<50	<50	<50	<125				
roclor 1254	mg/kg	<5	183	<5	436				
roclor 1260	mg/kg	13.7	28.7	42	140				

Notes: BMDL=Below d Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

July 25, 1983
Page 1

Chain of Custody Data Required for ETC Data Management Summary Report

See Below ETC Sample No.	CLEAN WATER, INC. Company	SITE 690 Facility	See Below Sample Point	Date

ameters	Units	SA1-0 830518 C3465	SA2-0 830518 C3463	SA3-0 830518 C3464					
		Sample Points, Sampling Dates, and ETC Sample No.'s							
scellaneous Parameters									
oclor 1242	mg/kg	<5	<5	<5					
oclor 1254	mg/kg	<5	<5	<5					
oclor 1260	mg/kg	<5	<5	<5					

notes: BMDL=Below od Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-0C) - All Parameters Tested, Selected Samples

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below	
ETC Sample No.	Company	Facility	Sample Point	Date

Parameters	Units	CL1-1-0 830511 C3007	CL1-1-3 830511 C3009	CL1-1-6 830511 C3008	CL1-1-9 830511 C3010	CL1-1-12 830511 C3143	CL1-1-12C 830511 C3468	CL1-2-0 830511 C3137	CL1-2-3 830511 C3135
		Sample Points, Sampling Dates, and ETC Sample No.'s							
Miscellaneous Parameters									
Aroclor 1242	mg/kg	<5	<5	<5	<5	<25	<5	<5	<5
Aroclor 1254	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5
Aroclor 1260	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5

Footnotes: BMDL=Below Method Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below
ETC Sample No.	Company	Facility	Sample Point / Date

rameters	Units	CL1-2-6 830511 C3136	CL1-2-10 830511 C3145	CL1-2-11C 830511 C3441	CL1-3-3 830512 C3140	CL1-3-6.5 830512 C3139	CL1-3-9 830511 C3142	CL1-3-11C 830513 C3193
		Sample Points, Sampling Dates, and ETC Sample No.'s						
scellaneous Parameters								
oclor 1242	mg/kg	<50	<125	<5	<5	<5	<125	<5
oclor 1254	mg/kg	18.5	310	<5	<5	<5	281	<5
oclor 1260	mg/kg	13.7	24.7	<5	<5	<5	<125	<5

'notes: BMDL=Below >d Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

November 3, 1983
Page 1

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below	
ETC Sample No.	Company	Facility	Sample Point	Date

Parameters	Units	Sample Points, Sampling Dates, and ETC Sample No.'s							
		CL1-3-9 830511 D0328							
Base/Neutral Compounds									
2,3,7,8-TCDD	ug/kg	ND							

Notes: BMDL=Below Method Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

August 26, 1983
Page 1

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below
ETC Sample No.	Company	Facility	Sample Point Date

Parameters	Units	Sample Points, Sampling Dates, and ETC Sample No.'s							
		CL4-2-6 830517 C4666							
Miscellaneous Parameters									
2,3,7,8-TCDD	ug/kg	18.00							

Footnotes: BMDL=Below Method Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below	
ETC Sample No.	*Company*	*Facility*	*Sample Point*	*Date*

rameters	*Units*	*Sample Points, Sampling Dates, and ETC Sample No.'s*							
		CL4-1-6 830518 C3469	CL4-2-16 830517 C3425						
iscellaneous Parameters									
.4,5-TP (Silvex)	mg/l	<1	<1						
.4-D	mg/l	<10	<10						
·senic	mg/l	0.4	0.3						
ırium	mg/l	<5	<5						
ıdmium	mg/l	<0.8	<0.8						
ıromium	mg/l	<1	2						
ıdrin	mg/l	<0.02	<0.02						
ıad	mg/l	<2	<2						
.ndane	mg/l	<0.4	<0.4						
ırcury	mg/l	<0.002	<0.002						
ıthoxychlor	mg/l	<10	<10						
ılenium	mg/l	0.3	<0.2						
.lver	mg/l	<0.5	<0.5						
ıxaphene	mg/l	<0.5	<0.5						

Notes: BMDL=Below ... od Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

July 26, 1983
Page 1

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below
ETC Sample No.	*Company*	*Facility*	*Sample Point* *Date*

ameters	Units	CL6-1-12 830512 C3157	CL6-1-13 830511 C3156	CL6-1-13C 830512 C3411	CL6-1-4 830512 C3138	CL6-1-6 830512 C3159	CL6-1-9 830512 C3158	CL6-2-12 830512 C3152	CL6-2-14.5 830512 C3151
		Sample Points, Sampling Dates, and ETC Sample No.'s							
›clor 1242	mg/kg	<25	<25	<5	<5	<5	<5	<5	<25
›clor 1254	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5
›clor 1260	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5

›otes: BMDL=Below : Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below	
ETC Sample No.	Company	Facility	Sample Point	Date

Parameters	Units	CL6-2-15C 830512 C3410	CL6-2-3.5 830512 C3155	CL6-2-6.5 830512 C3154	CL6-2-9.5 830512 C3153	CL6-3-12C 830512 C3409	CL6-3-4 830512 C3150	CL6-3-6 830512 C3149	CL6-3-9 830512 C3144
		Sample Points, Sampling Dates, and ETC Sample No.'s							
clor 1242	mg/kg	<5	<5	<5	<5	<5	<5	<25	<5
clor 1254	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5
clor 1260	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5

otes: BMDL=Below M Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below
ETC Sample No.	Company	Facility	Sample Point Date

Parameters	Units	CL6-4-11.5 830512 C3171	CL6-4-12C 830512 C3428	CL6-4-3 830512 C3148	CL6-4-6 830512 C3147	CL6-4-9 830512 C3146			
		Sample Points, Sampling Dates, and ETC Sample No.'s							
oclor 1242	mg/kg	<25	<5	<5	<5	<25			
oclor 1254	mg/kg	<5	<5	<5	<5	<5			
oclor 1260	mg/kg	<5	<5	<5	<5	<5			

otes: BMDL=Below 1 Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

August 24, 1983
Page 1

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below	
ETC Sample No.	Company	Facility	Sample Point	Date

rameters	Units	Sample Points, Sampling Dates, and ETC Sample No.'s							
		CL6-4-12C 830512 C3428							
scellaneous Parameters									
3,7,8-TCDD	ug/kg	ND							

Notes: BMDL=Below Method Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

August 24, 1983
Page 1

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below	
ETC Sample No.	Company	Facility	Sample Point	Date

rameters	Units	Sample Points, Sampling Dates, and ETC Sample No.'s							
		CL6-3-9 830512 C3144							
.scellaneous Parameters									
4,5-TP (Silvex)	mg/l	<1							
4-D	mg/l	<10							
senic	mg/l	<0.5							
rium	mg/l	<5							
dmium	mg/l	<0.5							
romium	mg/l	<1							
drin	mg/l	<0.02							
ad	mg/l	<2							
ndane	mg/l	<0.4							
rcury	mg/l	<0.002							
thoxychlor	mg/l	<10							
lenium	mg/l	<0.5							
lver	mg/l	<0.2							
xaphene	mg/l	<0.5							

Notes: BMDL=Below ' hod Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below	
ETC Sample No.	*Company*	*Facility*	*Sample Point*	*Date*

rameters	Units	CL9-1-0 830510 C3032	CL9-1-2 830510 C3031	CL9-1-3 830510 C3030	CL9-1-4 830510 C3029	CL9-1-6 830510 C3043	CL9-1-8 830510 C3045	CL9-1-10C 830510 C3418	CL9-2-0 830510 C3026
		Sample Points, Sampling Dates, and ETC Sample No.'s							
scellaneous Parameters									
oclor 1242	mg/kg	<5	<10	<5	<10	<50	<50	<5	<5
oclor 1254	mg/kg	<5	<10	<5	<10	<5	<5	<5	<5
oclor 1260	mg/kg	<5	<10	<5	<10	<5	<5	<5	<5

Notes: BMDL=Below M d Detection Limit ND=Parameter not detected '-'=Parameter not tested

ETC ENVIRONMENTAL TESTING and CERTIFICATION

DATA MANAGEMENT SUMMARY REPORT
(DM-OC) - All Parameters Tested, Selected Samples

Chain of Custody Data Required for ETC Data Management Summary Report

See Below	CLEAN WATER, INC.	SITE 690	See Below	
ETC Sample No.	Company	Facility	Sample Point	Date

Parameters	Units	CL9-2-3 830510 C3028	CL9-2-7 830510 C3027	CL9-2-9 830510 C3025	CL9-3-0 830510 C3012	CL9-3-3 830511 C3011	CL9-3-6 830510 C3013	CL9-3-9 830511 C3050	CL9-3-11 830510 C3417
Sample Points, Sampling Dates, and ETC Sample No.'s									
Miscellaneous Parameters									
Aroclor 1242	mg/kg	<5	<25	<12.5	<5	<12.5	<25	<125	<5
Aroclor 1254	mg/kg	<5	<5	<5	<5	<5	<5	34.4	<5
Aroclor 1260	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5

Notes: BMDL=Below Method Detection Limit ND=Parameter not detected '-'=Parameter not tested

SUMMARY OF ANALYTICAL DATA

OF THE

CLOSED PONDS

CHEMICAL WASTE MANAGEMENT, INC.
Vickery Facility
PCB Analysis

Closed Pond #1

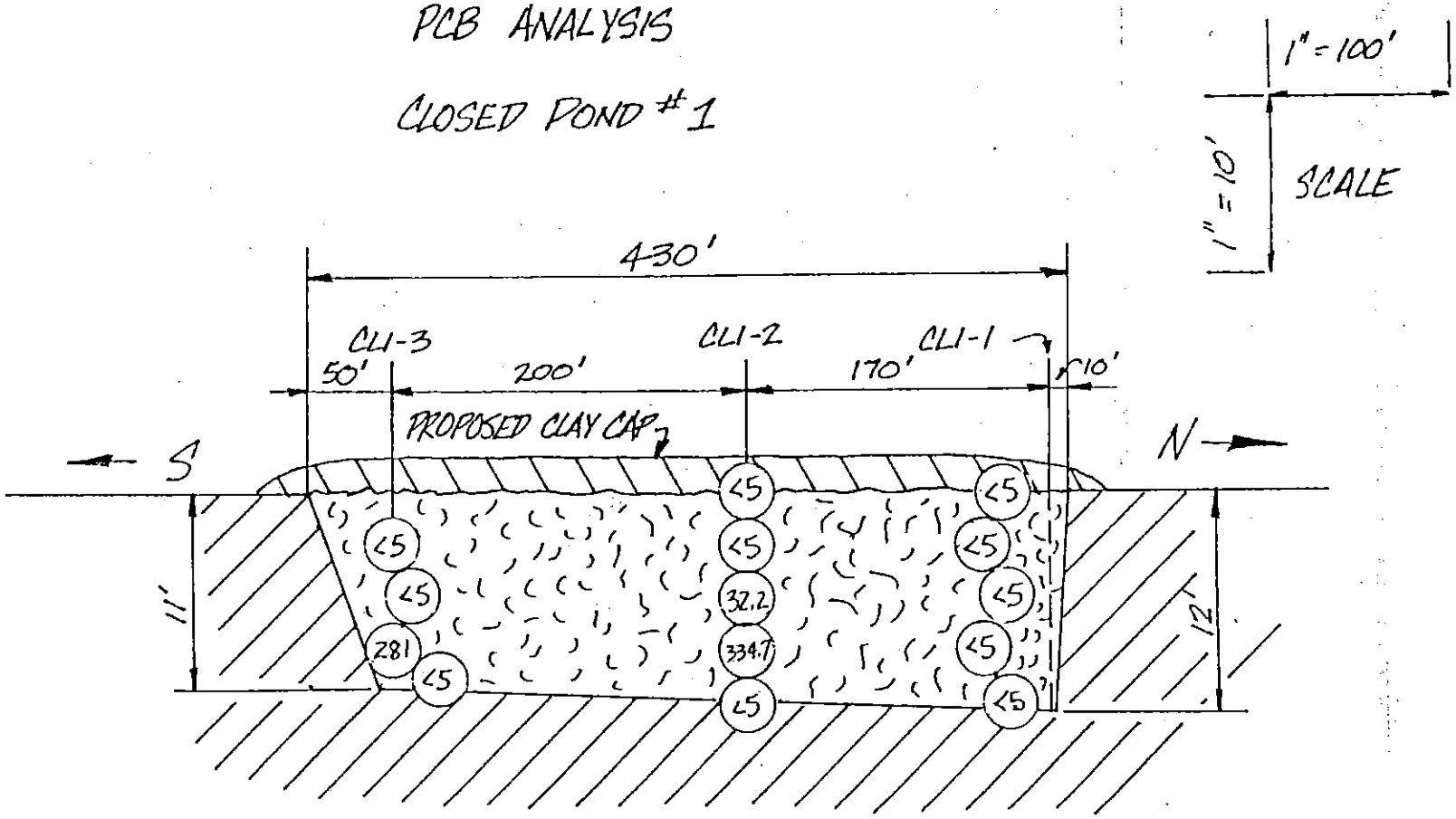
Total No. of Samples: 15
No. of Sludges: 12
No. of Clay: 3
Average Depth of Pond: 11.5
Average PCB Content: 43.19 mg/kg

E.T.C. Code	Aroclor 1242 mg/kg	Aroclor 1254 mg/kg	Aroclor 1260 mg/kg
CL1-1-0	Less than 5	Less than 5	Less than 5
CL1-1-3	Less than 5	Less than 5	Less than 5
CL1-1-6	Less than 5	Less than 5	Less than 5
CL1-1-9	Less than 5	Less than 5	Less than 5
CL1-1-12	Less than 25	Less than 5	Less than 5
CL1-1-12.5 Clay	Less than 5	Less than 5	Less than 5
CL1-2-0	Less than 5	Less than 5	Less than 5
CL1-2-3	Less than 5	Less than 5	Less than 5
CL1-2-6	Less than 50	18.5	13.7
CL1-2-10	Less than 125	310	24.7
CL1-2-11 Clay	Less than 5	Less than 5	Less than 5
CL1-3-0	Less than 5	Less than 5	Less than 5
CL1-3-6.5	Less than 5	Less than 5	Less than 5
CL1-3-9	Less than 125	281	Less than 125
CL1-3-11 Clay	Less than 5	Less than 5	Less than 5

All Results completed by Environmental Testing & Certification of Edison, New Jersey

CHEMICAL WASTE MGT.
VICKERY FACILITY
PCB ANALYSIS

CLOSED POND #1



CLAY

CLOSURE FILL

COVER

(<5) NUMBERS ARE PCB CONCENTRATIONS (TOTALS) BY GC METHOD, IN P.P.M.

CHEMICAL WASTE MANAGEMENT, INC.
Vickery Facility
PCB Analysis

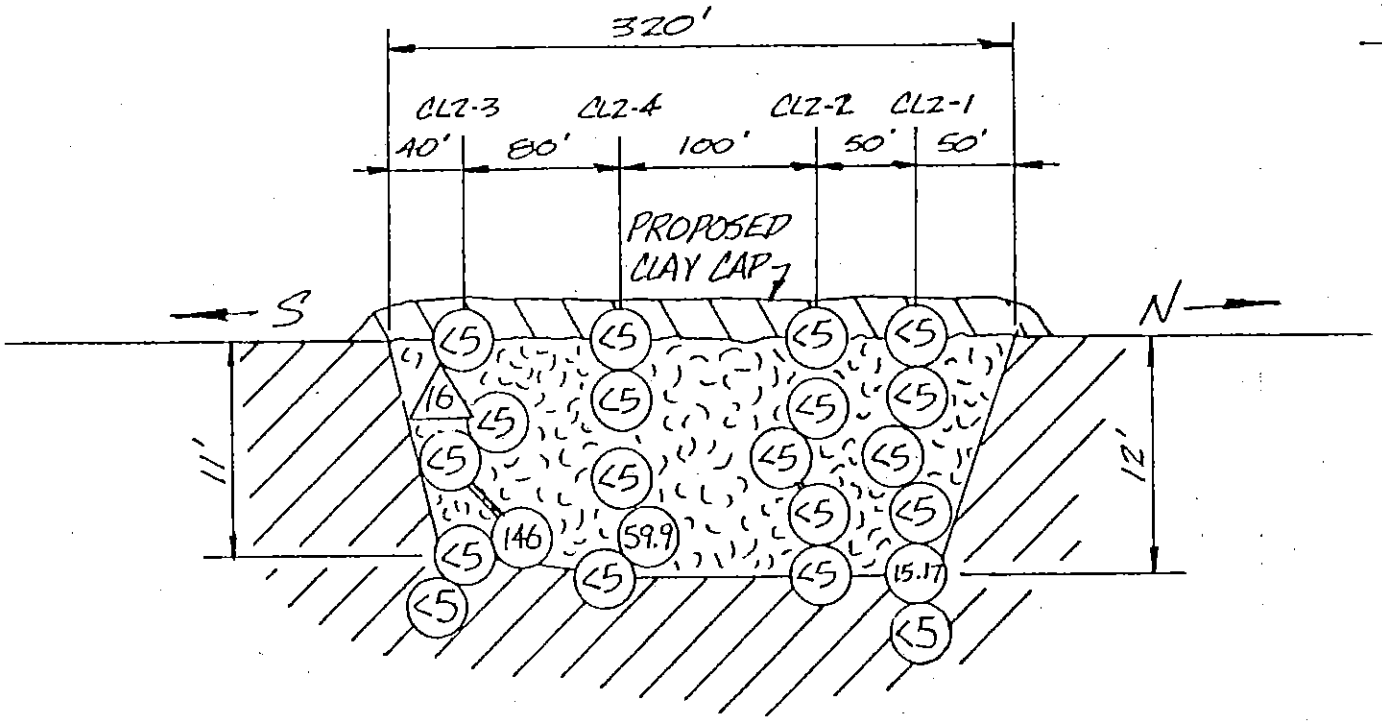
Closed Pond #2

Total No. of Samples: 25
No. of Sludges: 21
No. of Clay: 4
Average Depth of Pond: 11.5
Average PCB Content: 9 mg/kg

E.T.C. Code	Aroclor 1242 mg/kg	Aroclor 1254 mg/kg	Aroclor 1260 mg/kg
CL2-1-0	Less than 5	Less than 5	Less than 5
CL2-1-3	Less than 5	Less than 5	Less than 5
CL2-1-6	Less than 5	Less than 5	Less than 5
CL2-1-9	Less than 5	Less than 5	Less than 5
CL2-1-12	Less than 50	8.89	6.28
CL2-1-12 Clay	Less than 5	Less than 5	Less than 5
CL2-2-0	Less than 5	Less than 5	Less than 5
CL2-2-3.5	Less than 5	Less than 5	Less than 5
CL2-2-6	Less than 5	Less than 5	Less than 5
CL2-2-9	Less than 5	Less than 5	Less than 5
CL2-2-12	Less than 5	Less than 5	Less than 5
CL2-2-12 Clay	Less than 5	Less than 5	Less than 5
CL2-3-0	Less than 5	Less than 5	Less than 5
CL2-3-3 Oil	Less than 10 ug/l	16 ug/l	Less than 10 ug/l
CL2-3-4	Less than 5	Less than 5	Less than 5
CL2-3-6	Less than 50	Less than 5	Less than 5
CL2-3-10	Less than 10	146	Less than 10
CL2-3-11	Less than 5	Less than 5	Less than 5
CL2-3-11 Clay	Less than 5	Less than 5	Less than 5
CL2-4-0	Less than 5	Less than 5	Less than 5
CL2-4-3	Less than 25	Less than 5	Less than 5
CL2-4-7	Less than 5	Less than 5	Less than 5
CL2-4-10	Less than 5	Less than 5	Less than 5
CL2-4-12	Less than 125	37.3	22.6
CL2-4-12 Clay	Less than 5	Less than 5	Less than 5

CHEMICAL WASTE MGT.
VICKERY FACILITY
PCB ANALYSIS

CLOSED POND #2



CLAY
CLOSURE FILL
COVER

(<5) NUMBERS ARE PCB CONCENTRATIONS (TOTALS) BY GC METHOD, IN P.P.M.

△ OIL SAMPLE, P.P.B.

CHEMICAL WASTE MANAGEMENT, INC.
Vickery Facility
PCB Analysis

Closed Pond #3

Total No. of Samples: 9
No. of Sludges: 7
No. of Clay: 3
Average Depth of Pond: 3 feet
Average PCB Content: 25 mg/kg

E.T.C. Code	Aroclor 1242 mg/kg	Aroclor 1254 mg/kg	Aroclor 1260 mg/kg
CL3-1-0	Less than 5	Less than 5	Less than 5
CL3-1-3	Less than 25	12.2	Less than 5
CL3-1-4 CLay	Less than 5	7.9	Less than 5
CL3-2-0	Less than 5	Less than 5	Less than 5
CL3-2-3 (no clay sample)	Less than 125	124	31.8
CL3-3-0	Less than 5	Less than 5	Less than 5
CL3-3-3	Less than 5	9.7	Less than 5
CL1-3-3.5	Less than 5	7.5	Less than 5
CL1-3-6 Clay	Less than 25	24.6	7.05

All Results completed by Environmental Testing & Certification of Edison, New Jersey

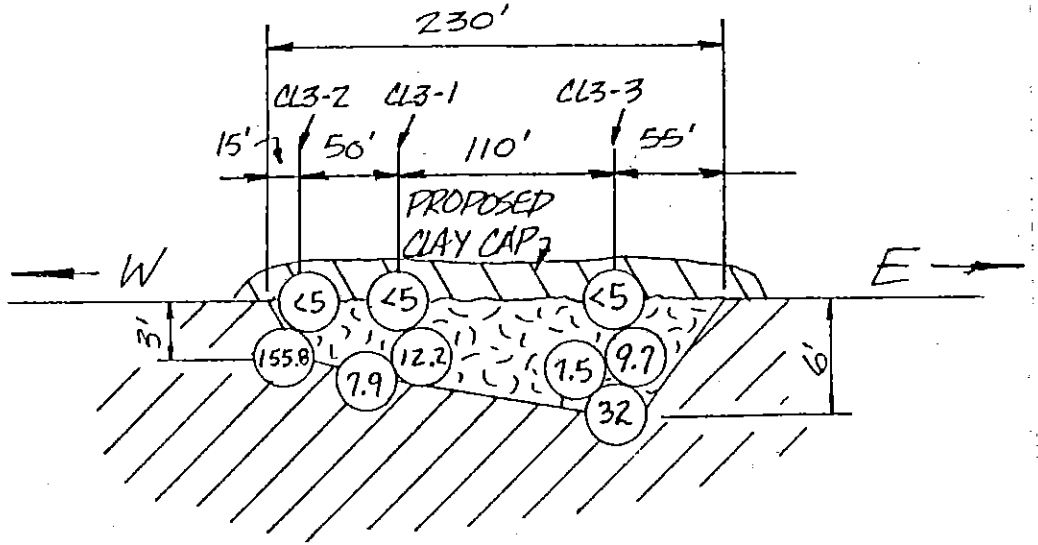
CHEMICAL WASTE MGT.
VICKERY FACILITY
PCB ANALYSIS

CLOSED POND #3

1" = 100'

1" = 10'

SCALE



CLAY
CLOSURE FILL
COVER

(<5) NUMBERS ARE PCB CONCENTRATIONS (TOTAL) BY GC METHOD, IN P.P.M.

CHEMICAL WASTE MANAGEMENT, INC.
Vickery Facility
PCB Analysis

Closed Pond #4

Total No. of Samples: 34
No. of Sludges: 27
No. of Clay: 6
Average Depth of Pond: 15 feet
Average PCB Content: 5.32 mg/kg

E.T.C. Code	Aroclor 1242 mg/kg	Aroclor 1254 mg/kg	Aroclor 1260 mg/kg
CL4-1-0	Less than 50	8.3	Less than 5
CL4-1-3	Less than 50	19.2	Less than 5
CL4-1-6	Less than 125	Less than 50	Less than 50
CL4-1-10	Less than 25	Less than 5	Less than 5
CL4-1-12 (no clay)	Less than 5	Less than 5	Less than 5
CL4-2-0	Less than 5	Less than 5	Less than 5
CL4-2-3	Less than 5	Less than 5	Less than 5
CL4-2-6	Less than 50	Less than 5	Less than 5
CL4-2-9	Less than 125	Less than 125	Less than 125
CL4-2-13 Oil	Less than 250 ug/l	Less than 10 ug/l	392 ug/l
CL4-2-16	Less than 25	Less than 5	Less than 5
CL4-2-17 Clay	Less than 5	Less than 5	Less than 5
CL4-3-3	Less than 5	Less than 5	Less than 5
CL4-3-6	Less than 5	Less than 5	Less than 5
CL4-3-9	Less than 5	Less than 5	Less than 5
CL4-3-13 Clay	Less than 25	Less than 5	Less than 5
CL4-3-15 Clay	Less than 5	Less than 5	Less than 5
CL4-4-1	Less than 5	Less than 5	Less than 5
CL4-4-3	Less than 25	Less than 5	Less than 5
CL4-4-6	Less than 5	Less than 5	Less than 5
CL4-4-9	Less than 5	Less than 5	Less than 5
CL4-4-12 Clay	Less than 5	Less than 5	Less than 5
CL4-5-0	Less than 5	Less than 5	Less than 5
CL4-5-3	Less than 5	Less than 5	Less than 5
CL4-5-6	Less than 25	Less than 5	Less than 5
CL4-5-10	Less than 125	Less than 5	Less than 5
CL4-5-12	Less than 25	Less than 5	Less than 5
CL4-5-16 (no clay)	Less than 25	Less than 5	Less than 5

E.T.C. Code	Aroclor 1242 mg/kg	Aroclor 1254 mg/kg	Aroclor 1260 mg/kg
CL4-6-3	Less than 25	Less than 5	Less than 5
CL4-6-4	Less than 10 ug/l	Less than 10 ug/l	Less than 10 ug/l
CL4-6-6	Less than 125	Less than 5	22.8
CL4-6-9	Less than 25	Less than 5	Less than 5
CL4-6-12	Less than 5	Less than 5	Less than 5
CL4-6-15 Clay	Less than 5	Less than 5	Less than 5

All results by completed Environmental Testing & Certification of Edison, New Jersey

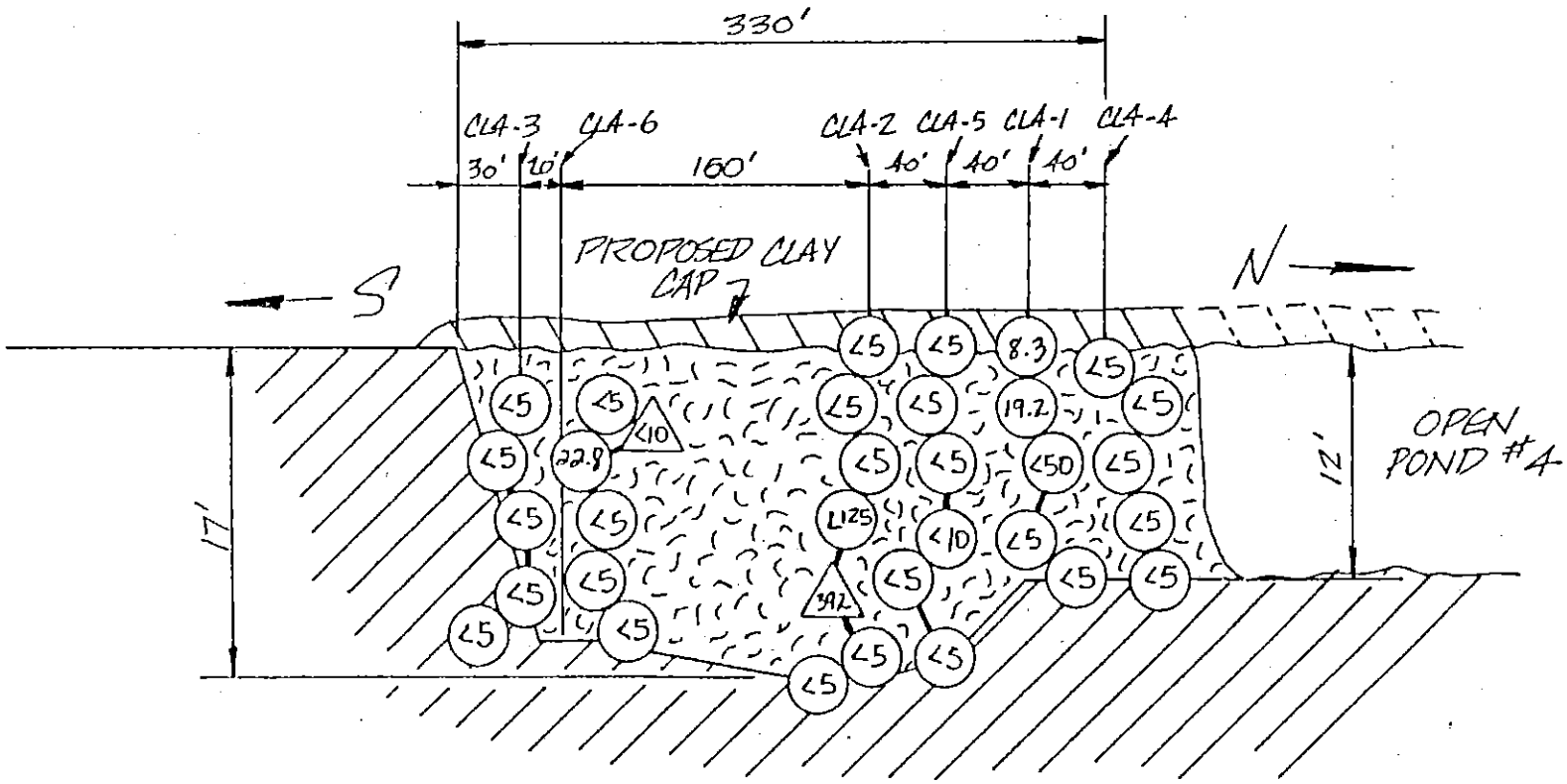
CHEMICAL WASTE MGT.
VICKERY FACILITY
PCB ANALYSIS

CLOSED POND #4

1" = 100'

1" = 10'

SCALE



CLAY
CLOSURE FILL
COVER

(<5) NUMBERS ARE PCB CONCENTRATIONS (TOTAL) BY GC METHOD, IN P.P.M.

△ OIL SAMPLE, P.P.B.

CHEMICAL WASTE MANAGEMENT, INC.
Vickery Facility
PCB Analysis

Closed Pond #6

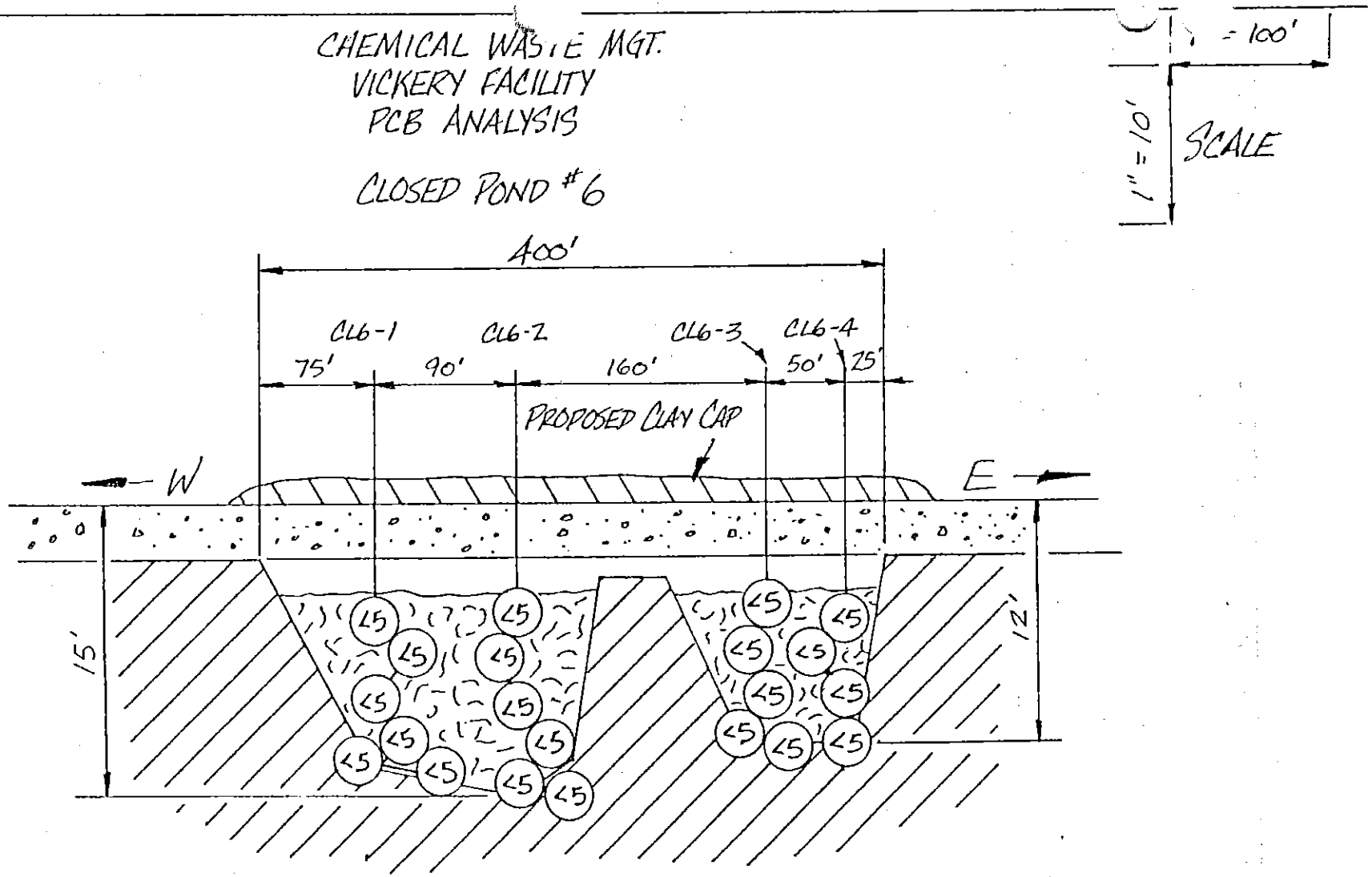
Total No. of Samples: 21
No. of Sectors: 4
Average Depth of Pond: 12.8
Average PCB Content: Less than 5 ppm

E.T.C. Code	Aroclor 1242 mg/kg	Aroclor 1254 mg/kg	Aroclor 1260 mg/kg
CL6-1-4	Less than 5	Less than 5	Less than 5
CL6-1-6	Less than 5	Less than 5	Less than 5
CL6-1-9	Less than 5	Less than 5	Less than 5
CL6-1-12	Less than 25	Less than 5	Less than 5
CL6-1-13	Less than 25	Less than 5	Less than 5
CL6-1-13 Clay	Less than 5	Less than 5	Less than 5
CL6-2-3.5	Less than 5	Less than 5	Less than 5
CL6-2-6.5	Less than 5	Less than 5	Less than 5
CL6-2-9.5	Less than 5	Less than 5	Less than 5
CL6-2-12	Less than 5	Less than 5	Less than 5
CL6-2-14.5	Less than 25	Less than 5	Less than 5
CL6-2-15 Clay	Less than 5	Less than 5	Less than 5
CL6-3-4	Less than 5	Less than 5	Less than 5
CL6-3-6	Less than 25	Less than 5	Less than 5
CL6-3-9	Less than 5	Less than 5	Less than 5
CL6-3-12	Less than 5	Less than 5	Less than 5
CL6-4-3	Less than 5	Less than 5	Less than 5
CL6-4-6	Less than 5	Less than 5	Less than 5
CL6-4-9	Less than 25	Less than 5	Less than 5
CL6-4-11.5	Less than 25	Less than 5	Less than 5
CL6-4-12 Clay	Less than 5	Less than 5	Less than 5

All Results completed by Environmental Testing & Certification of Edison, New Jersey

CHEMICAL WASTE MGT.
VICKERY FACILITY
PCB ANALYSIS

CLOSED POND #6



CLAY
CLOSURE FILL
STONE FILL
COVER

(<5) NUMBERS ARE PCB CONCENTRATIONS (TOTAL) BY GC METHOD, IN P.P.M.

CHEMICAL WASTE MANAGEMENT, INC.
Vickery Facility
PCB Analysis

Closed Pond #9

Total No. of Samples: 17
No. of Sectors: 3
Average Depth of Pond: 10
Average PCB Content: 2.02 ppm

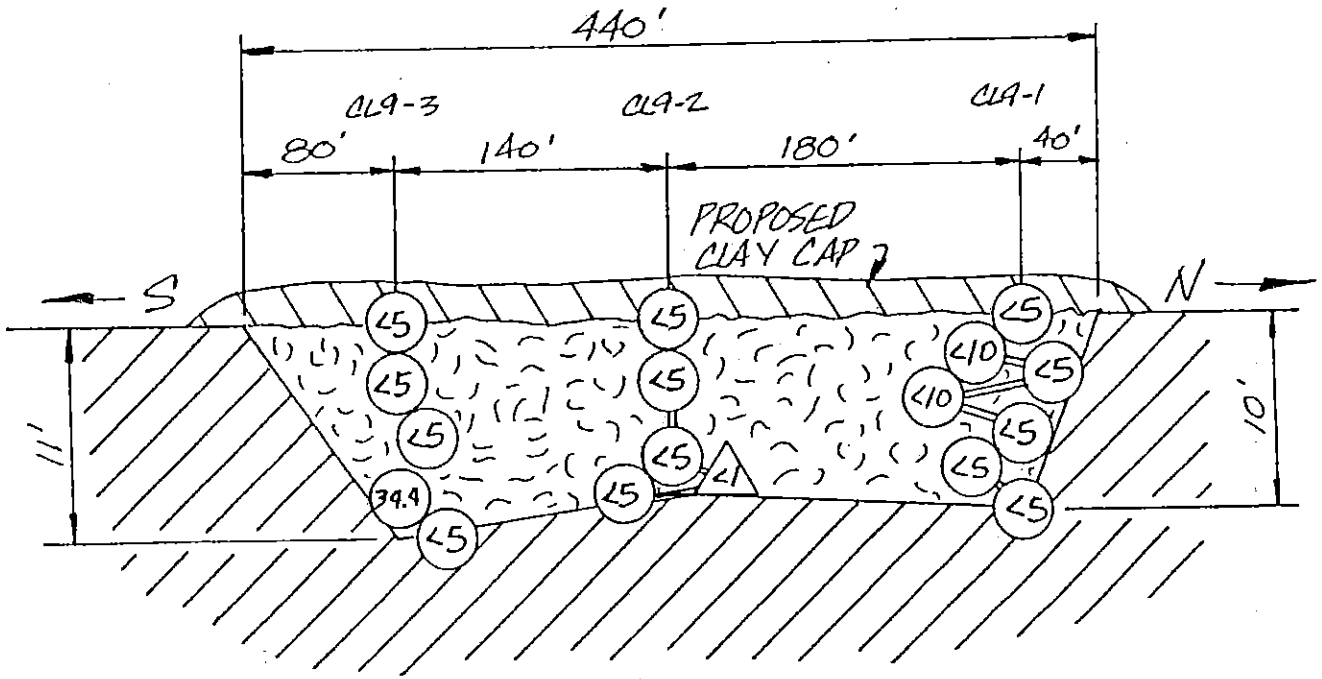
E.T.C. Code	Aroclor 1242 mg/kg	Aroclor 1254 mg/kg	Aroclor 1260 mg/kg
CL9-1-0	Less than 5	Less than 5	Less than 5
CL9-1-2	Less than 10	Less than 10	Less than 10
CL9-1-3	Less than 5	Less than 5	Less than 5
CL9-1-4	Less than 10	Less than 10	Less than 10
CL9-1-6	Less than 5	Less than 5	Less than 5
CL9-1-8	Less than 50	Less than 5	Less than 5
CL9-1-10 Clay	Less than 5	Less than 5	Less than 5
CL9-2-0	Less than 5	Less than 5	Less than 5
CL9-2-3	Less than 5	Less than 5	Less than 5
CL9-2-7	Less than 25	Less than 5	Less than 5
CL9-2-9 Clay	Less than 12.5	Less than 5	Less than 5
CL9-2-9 Aqueous	Less than 10 ug/1	Less than 1 ug/1	Less than 1 ug/1
CL9-3-0	Less than 5	Less than 5	Less than 5
CL9-3-3	Less than 12.5	Less than 5	Less than 5
CL9-3-6	Less than 25	Less than 5	Less than 5
CL9-3-9 Sludge	Less than 125	34.4	Less than 5
CL9-3-11 Clay	Less than 5	Less than 5	Less than 5

All Results completed by Environmental Testing & Certification of Edison, New Jersey

CHEMICAL WASTE MGT.
VICKERY FACILITY
PCB ANALYSIS

CLOSED POND #9

1" = 100'
1" = 10'
SCALE



CLAY
CLOSURE FILL
COVER

(<5) NUMBERS ARE PCB CONCENTRATIONS (TOTAL) BY GC METHOD, IN P.P.M.
△ AQUEOUS, P.P.B.

CHEMICAL WASTE MANAGEMENT, INC.
Vickery Facility
PCB Analysis

Closed Pond #10

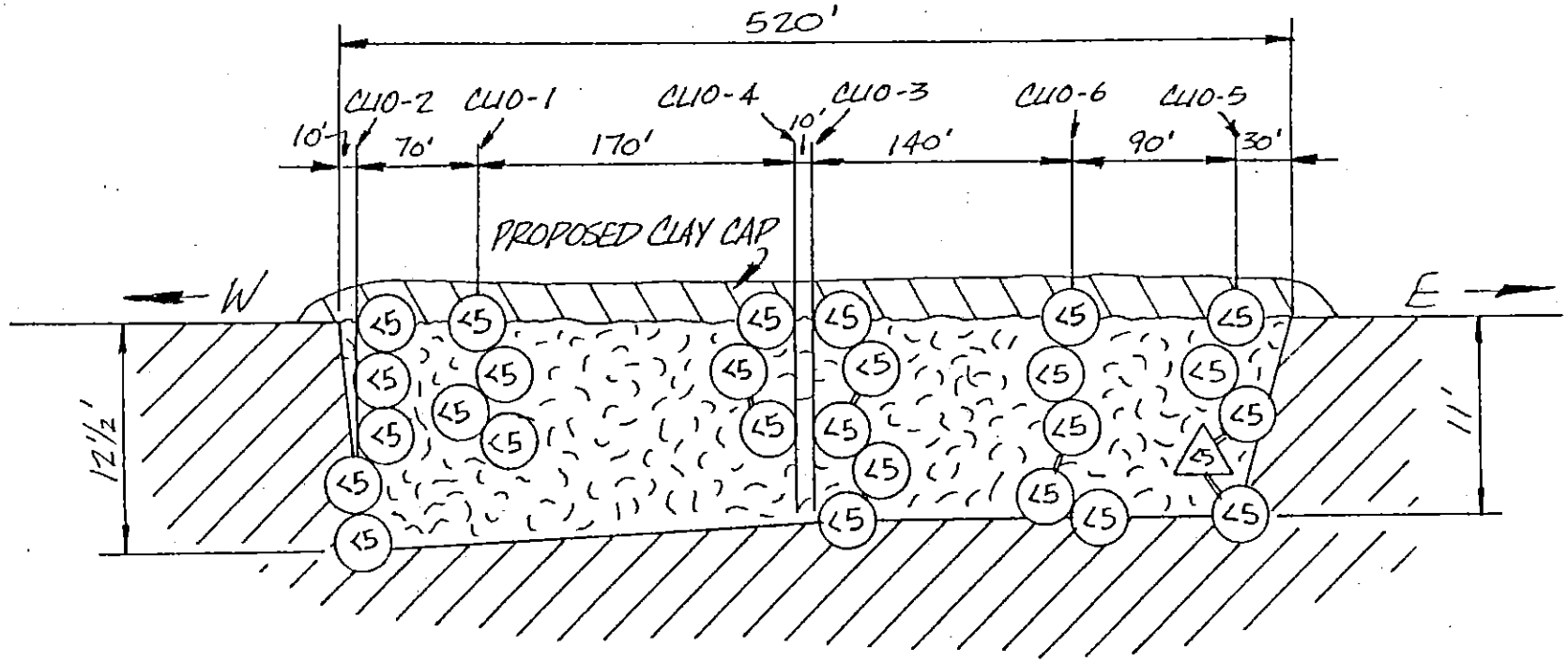
Total No. of Samples: 29
No. of Sectors: 6
Average Depth of Pond: 9.5 feet
Average PCB Content: Less than 5 ppm

E.T.C. Code	Aroclor 1242 mg/kg	Aroclor 1254 mg/kg	Aroclor 1260 mg/kg
CL10-1-0	Less than 5	Less than 5	Less than 5
CL10-1-3	Less than 5	Less than 5	Less than 5
CL10-1-5	Less than 25	Less than 5	Less than 5
CL10-1-6	Less than 50	Less than 5	Less than 5
CL10-2-0	Less than 5	Less than 5	Less than 5
CL10-2-3	Less than 5	Less than 5	Less than 5
CL10-2-6	Less than 5	Less than 5	Less than 5
CL10-2-9	Less than 5	Less than 5	Less than 5
CL10-2-12	Less than 5	Less than 5	Less than 5
CL10-2-12.5 Clay	Less than 5	Less than 5	Less than 5
CL10-3-0	Less than 5	Less than 5	Less than 5
CL10-3-3	Less than 5	Less than 5	Less than 5
CL10-3-6	Less than 5	Less than 5	Less than 5
CL10-3-8.5	Less than 50	Less than 5	Less than 5
CL10-3-11	Less than 125	Less than 5	Less than 5
CL10-4-0	Less than 5	Less than 5	Less than 5
CL10-4-3	Less than 5	Less than 5	Less than 5
CL10-4-6	Less than 5	Less than 5	Less than 5
CL10-4-6 Clay	Less than 5	Less than 5	Less than 5
CL10-5-0	Less than 5	Less than 5	Less than 5
CL10-5-3	Less than 5	Less than 5	Less than 5
CL10-5-5.5	Less than 25	Less than 5	Less than 5
CL10-5-7.5 Aqueous	Less than 5.2 ug/l	Less than 1.04 ug/l	Less than 1.04 ug/l
CL10-5-11 Clay	Less than 5	Less than 5	Less than 5
CL10-6-0	Less than 5	Less than 5	Less than 5
CL10-6-3	Less than 5	Less than 5	Less than 5
CL10-6-6	Less than 5	Less than 5	Less than 5
CL10-6-10	Less than 25	Less than 5	Less than 5
CL10-6-11 Clay	Less than 5	Less than 5	Less than 5

All Results completed by Environmental Testing & Certification of Edison, New Jersey

CHEMICAL W. & MGT.
VICKERY FACILITY
PCB ANALYSIS

CLOSED POND #10



CLAY
CLOSURE FILL
COVER

(<5) NUMBERS ARE PCB CONCENTRATIONS (TOTAL) BY GC METHOD, IN P.P.M.
△ AQUEOUS, P.P.B.

2/17/84

OhioEPA
State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr.
Columbus, Ohio 43266-0149
(614) 644-3020
FAX (614) 644-2329

George V. Voinovich
Governor

Donald R. Schregardus
Director

May 21, 1993

Re: Chemical Waste Management
US EPA ID No.: OHD020273819
Ohio ID No.: 03-72-0191
Completion of Partial Closure
W-Tanks

Chemical Waste Management
Attn: Mr. Fred Nicar
3956 State Route 412
Vickery, Ohio 43464

RECEIVED
MAY 25 1993
VICKERY

Dear Mr. Nicar:

According to our records, on July 19, 1988, the Director of Ohio EPA approved a closure plan submitted by Chemical Waste Management for their hazardous waste W-Tanks (W-3, W-4, W-5, W-7) located at 3956 State Route 412, Vickery, Ohio 43464. On February 27, 1992, Chemical Waste Management submitted to the Director certification documents stating that the hazardous waste W-Tanks had been closed according to the specifications in the approved closure plan. Ohio EPA District Office personnel completed a certification of closure inspection and a review of documents pertaining to the hazardous waste W-Tanks on July 13, 1992. Based on this inspection and review, the Ohio EPA has determined that the hazardous waste W-Tanks have been closed in accordance with the approved closure plan and Rules 3745-66-12 through 3745-66-15 of the Ohio Administrative Code (OAC) and Chemical Waste Management will maintain the status of a treatment, storage, and disposal facility (TSDF) of hazardous waste at their Vickery facility.

You should continue to use the identification number assigned to you for purposes of Ohio EPA manifest, recordkeeping, and reporting requirements as appropriate.

If you have any questions concerning your current status, please contact the Ohio EPA, Northwest District Office, Attn: Brent Kuenzli, 347 North Dunbridge Road, Bowling Green, Ohio 43402, telephone number (419) 352-8461.

Please note that this letter does not relieve you of any corrective action responsibilities that may be required.

Printed on recycled paper

Should you have any questions concerning this procedure, please contact Randy Sheldon, Division of Hazardous Waste Management, Data Management Section at the letterhead address or by telephone at (614) 644-2977.

Very truly yours,

Thomas E. Crepeau

Thomas E. Crepeau, Manager
Data Management Section
Division of Hazardous Waste Management

TEC/RS/ds

cc: Kevin Pierard, US EPA, Region V
Harriet Croke, US EPA, Region V
Hazardous Waste Facility Board
Randy Meyer, RCRA TAS, DHWM
Laurie Stevenson, HW ES, DHWM
Mike Rath, DMS, DHWM
Brent Kuenzli, NWDO, DHWM

CLOSURE OF W-TANKS
CHEMICAL WASTE MANAGEMENT, INC.
VICKERY, OHIO

Chemical Waste Management, Inc.
3956 State Route 412
Vickery, Ohio 43464

Attention: Mr. Michael F.R. Curry

Report No. 52865-292-048

February 7, 1992

BOWSER MORNER

BOWSER MORNER

COMMITTED TO EXCELLENCE
SINCE 1911

122 S. St. Clair Street
P.O. Box 838
Toledo, OH 43696-0838
419-255-8200

419-255-7935 FAX

February 7, 1992

Chemical Waste Management, Inc.
3956 State Route 412
Vickery, Ohio 43464

Attention: Mr. Michael F.R. Curry

RE: Closure of W-Tanks
Chemical Waste Management, Inc.
Vickery, Ohio
Report No. 52865-292-048

Gentlemen:

Enclosed is our independent registered professional engineer report for the closure of the W-Tank area. The report summarizes our observations made during the closure process and our evaluation of analytical test results supplied by Chemical Waste Management, Inc. As concluded in the report, it is our opinion that the tanks were closed in substantial accordance with the approved closure plans.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to be the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Please contact us if you have any questions regarding our report.

STATE OF OHIO
GLENN L
FITKIN III
E-49728
REGISTERED
PROFESSIONAL ENGINEER

Respectfully submitted,

BOWSER-MORNER ASSOCIATES, INC.

Glenn L. Fitkin

Glenn L. Fitkin, P.E.
Civil/Environmental Engineer

GLF:hmr
10-Client

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II. CLOSURE PLANS	1
III. CLOSURE WORK	2
IV. SUMMARY AND CONCLUSIONS	8

ATTACHMENT A	Tank Decontamination Rinseate Analysis Results
ATTACHMENT B	1990 Soil Analysis Results
ATTACHMENT C	1991 Soil Analysis Results
ATTACHMENT D	W-5 Soil Analysis Results for F Waste and PCB Constituents

BOWSER MORNER

I. INTRODUCTION

The W-Tanks, W-3, W-4, W-5 and W-7, were storage and treatment tanks used in conjunction with and prior to filtration and deep well injection of liquid wastes. The tanks and associated piping were closed under interim status regulations. The four tanks were located directly adjacent to the newer T-Tanks. Tanks W-3 and W-4 were located to the east of the T-Tanks, Tank W-5 was located to the northeast of the T-Tanks, and Tank W-7 was located to the north of the T-Tanks. Each of the tanks was a vertical steel cylindrical tank constructed on a soil foundation.

Bowser-Morner was retained by Chemical Waste Management, Inc., to serve as the independent registered professional engineer required by OAC 3745-66-15 and 40 CFR 265.115. As such, the purpose of Bowser-Morner's work was to evaluate compliance with the closure specifications in the approved closure plans.

II. CLOSURE PLANS

On February 1, 1988, Chemical Waste Management, Inc., submitted to Ohio EPA a closure plan for the W-Tanks. Revisions to the closure plan were submitted on June 2, 1988. Ohio EPA approved the plan subject to conditions on July 19, 1988. Chemical Waste Management, Inc., prepared a revision to the closure plan dated April 7, 1989, which was approved by Ohio EPA on September 29, 1989, after Ohio EPA received authorization to administer the federal program. On March 16, 1990, Chemical Waste Management, Inc., notified Ohio EPA of minor alterations to the closure process necessary primarily to comply with new land disposal restrictions.

After performing initial soil sampling following removal of the tanks in 1990, and after discussions with Ohio EPA representatives, Chemical Waste Management, Inc., submitted

a revised soil sampling plan to Ohio EPA. Ohio EPA approved the revised plan with conditions on March 5, 1991.

III. CLOSURE WORK

A. Parties Involved

Several parties performed different tasks during the closure of the W-Tanks. The environmental cleanup contractor engaged for the project was the ENRAC Division of Chemical Waste Management, Inc. ENRAC cleaned the tanks, disassembled the tanks and piping, arranged for the disposal of waste materials, excavated contaminated soil and performed the required rinseate and soil sampling for disposal and for closure.

Rinseate and soil analyses were performed by Aqua Tech Environmental Consultants, Inc. Samples were delivered directly to Aqua Tech by representatives of ENRAC or Chemical Waste Management, Inc.

Bowser-Morner was engaged as the independent registered professional engineer for certification of closure. During the closure field work, representatives of Bowser-Morner made periodic spot check visits to the site to observe the contractor's procedures and most of the rinseate and soil sampling performed by the contractor or Chemical Waste Management, Inc., representatives.

During the later portions of the work, representatives of Sirrine Environmental Consultants provided technical overview and field assistance, for example, in regard to soil sampling.

B. Dates of Work

Closure field work was commenced in mid-March 1990. From commencement through mid-May 1990, the contractor cleaned and disposed of the tanks and associated piping. The contractor performed the initial excavation of contaminated soils from under the previous locations of tanks from April through mid-May 1990. Initial soil samples were taken during that period as well. During June and July 1990 the contractor performed additional excavation at tank sites showing indications of residual contamination and sampled soil from those areas.

After negotiations with Ohio EPA and approval of a revised soil sampling plan, each of the four tank areas was resampled in April 1991 following additional excavation of soil, in accordance with the revised soil sampling plan. Between then and July 1991 the contractor performed additional rounds of excavation followed by soil sampling until all areas were thought to be clean. The contaminated soil was transported from the facility and disposed of in late August 1991. In September through early October 1991, the tank sites were backfilled with clean soil and graded. The area was seeded on October 9, 1991.

As discussed in further detail in Section III (F), additional excavation of contaminated soil was performed in the W-5 area from mid-December 1991 through early January 1992. The soil was transported for disposal between December 16, 1991, and February 6, 1992. The area was backfilled with clean clay soil on January 29, 1992, and will be seeded in the spring.

C. Tank Content Removal and Disposal

Each of the four tanks had a few inches of residual waste material remaining at the bottom of the tank. The materials were removed from the tanks with a vacuum truck. After the contractor determined that the materials were not filterable and, therefore, not

disposable through the on-site deep well injection system, the materials were solidified, placed in containers and transported to the TWI facility in Sauget, Illinois, for treatment and disposal as hazardous waste.

D. Tank Decontamination and Disposal

The contractor pressure-washed the interior of each tank. The rinse water was collected and transported to a Chemical Waste Management, Inc., facility in Newark, New Jersey, for treatment and disposal as hazardous waste.

At the completion of the rinsing of each tank, a sample of the rinseate water was collected by the contractor as required by the closure plan. Samples for each tank were analyzed by Aqua Tech for the required constituents listed in the closure plan. The laboratory test results are presented in Attachment A. The test results were compared by Chemical Waste Management, Inc., with the closure performance standards listed in the closure plan and the tanks were thought to be successfully decontaminated; however, an inadvertent error was made in evaluating the Tank W-5 results. The Tank W-5 rinseate results met all but one of the standards, as described below. The approved closure plan, as originally written, listed a decontamination standard of 20 ppm cyanide in rinseate water. Ohio EPA, in its approval letter, did not accept the 20 ppm limit and conditioned approval upon the establishment of a 1 mg/l limit for cyanide. The cyanide result for the tank W-5 rinseate water was 1.81 mg/l which is slightly over the limit required by Ohio EPA. The discrepancy between the limit in the original plan and the limit imposed by Ohio EPA was not recognized by Chemical Waste Management, Inc., until after the tank materials had been disposed of at a solid waste landfill. (Also, there was a rinseate result of 1.03 mg/l phenols for tank W-4, which might appear to exceed the maximum limit of 1 mg/l imposed by Ohio EPA, but which technically is equivalent to the limit and, therefore, did not actually exceed the limit.) Chemical Waste Management, Inc., immediately reported the

mistake to Ohio EPA on May 14, 1990. Ohio EPA responded that the tank materials could be left at the landfill. With this exception, the rinseate results for each tank did meet the clean standards in the closure plan.

The metal tanks were cut into pieces with a hydraulic shear between April 9 and May 9, 1990, and transported to Evergreen Landfill in Northwood, Ohio, for disposal as solid waste.

E. Piping Material Decontamination and Disposal

Fiberglass pipe insulation materials were removed from the piping undergoing closure between late March and early May 1990. The contractor inspected the insulation for signs of contamination by waste materials and in all cases, after finding no visual contamination, collected the materials in containers for disposal at Evergreen Landfill in Northwood, Ohio, as solid waste. PVC pipes and pumps were dismantled and cut into short pieces. The sections were triple-rinsed in a basic solution followed by a clean water rinse. Following rinsing, the materials were placed in containers and transported to Adams Center Landfill in Fort Wayne, Indiana, for disposal as hazardous waste. The rinse solutions were disposed of with the tank rinsing water.

F. Soil Removal and Disposal

The contractor performed initial soil excavation at each tank site as described in the 1989 closure plan. Following the initial excavation, a total of 40 soil samples were collected from the four areas at locations determined in accordance with the closure plan. The samples were collected by the contractor and submitted to Aqua Tech for chemical analysis. Results of the analyses are presented in Attachment B.

Upon review of the results, Chemical Waste Management, Inc., determined that contamination remained in some areas. Consequently, the contractor performed additional

depth and width excavation in the tank areas. Additional soil samples were then collected and analyzed. The results, which are also included in Attachment B, show that concentrations of some closure constituents continued to exceed the standards in the approved closure plan.

After two rounds of sampling and analysis, Chemical Waste Management, Inc., determined that the soil sampling plan in the approved closure plan was not reasonable because it appeared to require that each tank area be treated in the aggregate, rather than allowing subareas within each tank area to be deemed clean while focusing additional soil removal efforts in other subareas determined to not yet be clean. Consequently, Chemical Waste Management, Inc., initiated negotiations with Ohio EPA which culminated in the approval by Ohio EPA of a revised soil sampling plan in March 1991.

Based on the soil sample results from 1990 (presented in Attachment B), Chemical Waste Management, Inc., then had the contractor excavate additional soil in early 1991 from grid areas containing residual contamination. After excavation, the revised sampling plan was implemented and a total of 40 samples were collected in accordance with the revised plan. The samples were collected by the contractor and submitted to Aqua Tech for chemical analysis. The laboratory results are presented in Attachment C. A comparison of the new analytical data with the clean limits established in the revised plan showed that additional soil removal was required in select areas.

One deviation from the procedures in the revised plan has been noted. In the first round of soil sampling in 1991, the closure parameter "phenols" was analyzed by the colorimetric method approved in the original closure plan, rather than the GC/MS method proposed in the revised plan. Acceptance of the colorimetric method for certifying closure is reasonable since its detection limit is comparable or lower than the detection limits achievable by the GC/MS method and since the method was accepted by Ohio EPA in the

original approved closure plan. Consequently, the phenols results are accepted for the purposes of evaluating successful decontamination. Note that in subsequent rounds of analysis the GC/MS method was used, if additional phenols testing was needed based on a previous finding of residual phenols contamination.

The contractor performed additional rounds of excavation followed by soil sampling in 1991, until all sample areas were thought to meet the closure standards. The results for the additional samples are also contained in Attachment C.

Subsequently, during a review of the soil analysis data, it was determined that some data assumed to be available for soil samples from the tank W-5 area from 1990 were not, in fact, available. Specifically, some F-waste organic constituent and PCB test data were missing. Some, but not all, of the F-waste data were available from Aqua Tech from archived GC/MS testing results performed in 1990. Those results revealed that some residual contamination remained in the W-5 area. Chemical Waste Management immediately informed Ohio EPA and initiated plans to remove the clean backfill, excavate contaminated soil and obtain new soil samples. Field excavation work, including initial excavation in the whole W-5 area and then additional excavation in grid areas found to contain residual contamination, was initiated in mid-December 1991 and completed on January 2, 1992. Following this excavation work, soil samples indicated that all areas met the clean criteria established in the 1989-approved plan, as modified by the 1991-approved revised plan. The analytical data described in this paragraph are presented in Attachment D.

The soil excavated by the contractor was segregated by tank area and transported for disposal as follows. Potentially PCB-contaminated soil from the Tank W-3 area was transported to the TSCA-permitted Chemical Waste Management, Inc., facility at Model City, New York, for disposal as a PCB-contaminated hazardous waste. Other

contaminated soils were transported to the Adams Center Landfill in Fort Wayne, Indiana, for disposal as hazardous waste.

G. Backfilling of Site

After evaluation of the test results for the soil samples and the determination that an area was clean in accordance with the procedures established in the approved revised sampling plan, the tank area was backfilled by the contractor. (For the reasons described above, the W-5 area was backfilled twice). The depressions due to soil excavation were filled with clean clay soil from an on-site borrow pit. The area was final-graded in order to promote drainage off of the area to on-site drainage ditches and to prevent ponding.

H. Waste Manifests

Chemical Waste Management, Inc., has retained records on waste transportation and disposal in its files at the facility.

IV. SUMMARY AND CONCLUSIONS

Bowser-Morner representatives visited the W-Tank closure project periodically during closure activities to make observations of the closure procedures. Based upon those observations and a review of the rinseate and soil sample results provided by Chemical Waste Management, Inc., it is Bowser-Morner's opinion that the closure work was performed in substantial accordance with the specifications in the approved closure plans and that the W-Tanks have been successfully closed clean under OAC 3745-66-97(A).

ATTACHMENT A

TANK DECONTAMINATION RINSEATE ANALYSIS RESULTS

BOWSER MORNER

AQUA TECH
ENVIRONMENTAL CONSULTANTS, INC
P.O. Box 76 Mineral, Ohio 44640, 419-357-2005 or 357-2222
P.O. Box 436 101 South Main Street Marion, Ohio 43302, 614-382-5991

Tank W-3
Rinsate
W-3

LABORATORY ANALYSIS REPORT

DATE REC'D 04-02-1990
DATE REP'D. 04-05-1990
P.O. # 831293

LAB NO. 4437-90
CLIENT NO. I0030

DATE SAMPLED 03-30-1990
TIME SAMPLED 13:00

SAMPLE LOCATION 001
SAMPLED BY DARRIN SMITH

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	15	UG/L	04-04-1990
01007	BARIUM, TOTAL, BA	51	UG/L	04-04-1990
01027	CADMIUM, TOTAL, CD	6	UG/L	04-04-1990
01034	CHROMIUM, TOTAL, CR	200	UG/L	04-04-1990
01051	LEAD, TOTAL, PB	2300	UG/L	04-04-1990
71900	MERCURY, TOTAL, HG	1.0	UG/L	04-04-1990
01147	SELENIUM, TOTAL, SE	<60	UG/L	04-04-1990
01077	SILVER, TOTAL, AG	<10	UG/L	04-04-1990
00720	CYANIDE, TOTAL, CN	0.06	MG/L	04-03-1990
32730	PHENOLS, 4-AAP	0.294	MG/L	04-03-1990

OK

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

COPY DISTRIBUTION: WHITE - CLIENT YELLOW - FILE

Aqua Tech Environmental Consultants, Inc.
P. O. Box 76
Melmore, Ohio 44845

Chemical Waste Management
Misc. Volatile Organics
SW-846; Method 8240; 8015
Date Received: 03/30/90

ATEC Sample No.	4157
Client Identification	Tank #3 Rinse Water
Date Collected	03/30/90
Analyst	REB
Date Analyzed	04/04/90

Acetone	< 50.0
n-Butyl Alcohol	< 50.0
Carbon Disulfide	< 5.0
Carbon Tetrachloride	< 5.0
Chloroform	< 5.0
Chlorobenzene	< 5.0
Cyclohexanone	< 5.0
o-Dichlorobenzene	< 5.0
-Ethoxyethanol	< 50.0
thyl Acetate	< 50.0
Ethyl Benzene	6.3
Ethyl Ether	< 5.0
Isobutanol	< 50.0
Methanol	< 250
Methylene Chloride	150
Methyl Ethyl Ketone	< 50.0
Methyl Isobutyl Ketone	< 50.0
2-Nitropropane	< 50.0
Pyridine	< 100
Tetrachloroethylene	< 5.0
Toluene	18.7
1,1,1-Trichloroethane	< 5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10.0
Trichloroethylene	< 5.0
Trichlorofluoromethane	< 5.0
Total Xylenes	21.1

ove Results are in ug/l (ppb).

06

OK

Cursoli
Tank W 3

AQUATECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: CHEMICAL WASTE MANAGEMENT
SAMPLE TYPE: WATER
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: REB
CUSTOMER SAMPLE NO.: TANK #3 RINSE WATER

METHOD NO.: SW-846 METHOD 8240
DATE ANALYZED: 04/04/90
LAB NOTEBOOK NO.: M934X
ATEC NO. 4157

R E S U L T S (ug/L)

COMPOUND	CONCENTRATION
Acrolein	< 100
Acrylonitrile	< 100
Chloromethane	< 10.0
Bromomethane	< 10.0
Vinyl Chloride	< 10.0
Chloroethane	< 10.0
Trichlorofluoromethane	< 10.0
Methylene Chloride	150
1,1-Dichloroethene	< 5.0
1,1-Dichloroethane	< 5.0
cis-1,2-Dichloroethene	< 5.0
trans-1,2-Dichloroethene	< 5.0
Chloroform	< 5.0
1,2-Dichloroethane	< 5.0
1,1,1-Trichloroethane	< 5.0
Carbon Tetrachloride	< 5.0
Bromodichloromethane	< 5.0
1,2-Dichloropropane	< 5.0
cis-1,3-Dichloropropene	< 5.0
Trichloroethene	< 5.0
Dibromochloromethane	< 5.0
1,1,2-Trichloroethane	< 5.0
Benzene	< 5.0
trans-1,3-Dichloropropene	< 5.0
Bromoform	< 5.0
Tetrachloroethene	< 5.0
1,1,2,2-Tetrachloroethane	< 5.0
Toluene	18.7
Chlorobenzene	< 5.0
Ethylbenzene	6.3
Xylene (total)	21.1

106.

Lenzal
Tank
W3

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Water
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 001

Method No.: EPA-608
Date Received: 03/30/90
Date Extracted: 04/02/90
Date Analyzed: 04/02/90
Atec Sample No.: 4157

PCB-1016	< 1.0
PCB-1221	< 1.0
PCB-1232	< 1.0
PCB-1242	< 1.0
PCB-1248	< 1.0
PCB-1254	< 1.0
PCB-1260	< 1.0

All results are reported as ug/l (PPB).

ok

Renisali
Tank W4

AQUA TECH
ENVIRONMENTAL CONSULTANTS, INC.
P.O. Box 70, Melmore, Ohio 44845, 419-987-2659 or 997-2222
P.O. Box 456, 161 South Main Street, Marion, Ohio 43302, 614-382-5001

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-12-1990
DATE REP'D. 04-17-1990
P.O. # 831293

LAB NO. 5149-90
CLIENT NO. I0030

SAMPLE LOCATION TANK W-4
SAMPLED BY DARREN SMITH

DATE SAMPLED 04-11-1990
TIME SAMPLED 10:30

DARREN SMITH
CHEMICAL WASTE MANAGEMENT
100 NASSAU PARK BLVD
PRINCETON N.J 08540

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	50	UG/L	04-17-1990
01007	BARIUM, TOTAL, BA	330	UG/L	04-16-1990
01027	CADMIUM, TOTAL, CD	40	UG/L	04-16-1990
01034	CHROMIUM, TOTAL, CR	610	UG/L	04-16-1990
00720	CYANIDE, TOTAL, CN	0.358	MG/L	04-12-1990
1051	LEAD, TOTAL, PB	500	UG/L	04-16-1990
.900	MERCURY, TOTAL, HG	<20.0	UG/L	04-16-1990
32730	PHENOLS, 4-AAP	1.03	MG/L = 1.0	04-13-1990
01147	SELENIUM, TOTAL, SE	<25	UG/L	04-17-1990
01077	SILVER, TOTAL, AG	<10	UG/L	04-16-1990

OK

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

ACCUTEST ENVIRONMENTAL LABORATORIES, INC.
RESULT SHEET

CUSTOMER NAME: CHEMICAL WASTE MANAGEMENT
SAMPLE TYPE: WATER
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: REB
CUSTOMER SAMPLE NO.: TANK W-4

DATE RECEIVED: 04/11/91
DATE ANALYZED: 04/11/91
LAB NOTEBOOK NO.: M1064
ATEC NO. 4700

R E S U L T S (ug/L)

COMPOUND	CONCENTRATION
Acrolein	< 100
Acrylonitrile	< 100
Chloromethane	< 10.0
Bromomethane	< 10.0
Vinyl Chloride	< 10.0
Chloroethane	< 10.0
Trichlorofluoromethane	62.7
Methylene Chloride	19.6
1,1-Dichloroethene	< 5.0
1,1-Dichloroethane	< 5.0
1,2-Dichlorobenzene	10.7
1,3-Dichlorobenzene	< 5.0
1,4-Dichlorobenzene	< 5.0
cis-1,2-Dichloroethene	< 5.0
trans-1,2-Dichloroethene	< 5.0
Chloroform	< 5.0
1,2-Dichloroethane	< 5.0
1,1,1-Trichloroethane	5.7
Carbon Tetrachloride	< 5.0
Bromodichloromethane	< 5.0
1,2-Dichloropropane	< 5.0
cis-1,3-Dichloropropene	< 5.0
Trichloroethene	6.8
Dibromochloromethane	< 5.0
1,1,2-Trichloroethane	< 5.0
Benzene	< 5.0
trans-1,3-Dichloropropene	< 5.0
Bromoform	< 5.0
Tetrachloroethene	16.5
1,1,2,2-Tetrachloroethane	< 5.0
Toluene	47.9
Chlorobenzene	< 5.0
Ethylbenzene	31.7
Xylene (total)	130
	332.6

OK

Aqua Tech Environmental Consultants, Inc.
P. O. Box 76
Melmore, Ohio 44845

Chemical Waste Management
Misc. Volatile Organics
SW-846; Method 8240; 8015
Date Received: 04/11/90

ATEC Sample No.	4700
Client Identification	Tank W-4
Date Collected	04/11/90
Analyst	REB
Date Analyzed	04/12/90
Acetone	< 50.0
n-Butyl Alcohol	< 50.0
Carbon Disulfide	< 5.0
Carbon Tetrachloride	< 5.0
Chloroform	< 5.0
Chlorobenzene	< 5.0
Cyclohexanone	< 5.0
o-Dichlorobenzene	< 5.0
2-Ethoxyethanol	10.7
Ethyl Acetate	< 50.0
Ethyl Benzene	< 50.0
Ethyl Ether	31.7
Isobutanol	< 5.0
Methanol	< 50.0
Methylene Chloride	< 250
Methyl Ethyl Ketone	15.6
Methyl Isobutyl Ketone	< 50.0
2-Nitropropane	< 50.0
Pyridine	< 50.0
Tetrachloroethylene	< 100
Toluene	16.5
1,1,1-Trichloroethane	47.9
1,1,2-Trichloro-1,2,2-trifluoroethane	5.7
Trichloroethylene	< 10.0
Trichlorofluoromethane	6.8
Total Xylenes	67.7
	130

Above Results are in ug/l (ppb).

332.6

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Water
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: Tank W-4

Method No.: EPA-608
Date Received: 04/11/90
Date Extracted: 04/12/90
Date Analyzed: 04/16/90
Atec Sample No.: 4700

PCB-1016	< 1.0
PCB-1221	< 1.0
PCB-1232	< 1.0
PCB-1242	< 1.0
PCB-1248	< 1.0
PCB-1254	< 1.0
PCB-1260	< 1.0

All results are reported as ug/l (PPB).

Fuel-
W5

AQUA TECH ENVIRONMENTAL CONSULTANTS INC.
RESULT SHEET

Customer Name: Chemical Waste
Sample Type: Water
Analysis Performed: Purgeable Organics
Analyst: REB
Client Sample No.: Tank #5

Date Received: 05/01/90
Date Analyzed: 05/02/90
Method No.: SW-846; 8240
ATEC Sample No.:5684

Acrolein	< 100
Acrylonitrile	< 100
Benzene	< 5.0
Bromoform	< 10.0
Carbon Tetrachloride	< 5.0
Chlorobenzene	< 5.0
Chlorodibromomethane	< 5.0
Chloroethane	< 10.0
2-Chloroethyl Vinyl Ether	< 10.0
Chloroform	< 5.0
Dichlorobromomethane	< 5.0
Dichlorodifluoromethane	< 10.0
1,1-Dichloroethane	< 5.0
1,2-Dichloroethane	< 5.0
1,1-Dichloroethene	< 5.0
1,2-Dichloropropane	< 5.0
cis-1,3-Dichloropropene	< 5.0
trans-1,3-Dichloropropene	< 5.0
Ethyl Benzene	< 5.0
Methyl Bromide	< 10.0
Methyl Chloride	< 10.0
Methylene Chloride	< 10.0
1,1,2,2-Tetrachloroethane	< 5.0
Tetrachloroethene	< 5.0
Toluene	< 5.0
cis-1,2-Dichloroethene	< 5.0
trans-1,2-Dichloroethene	< 5.0
1,1,1-Trichloroethane	< 5.0
1,1,2-Trichloroethane	< 5.0
Trichloroethene	< 5.0
Trichlorofluoromethane	< 10.0
Vinyl Chloride	< 10.0
Total Xylenes	< 5.0

All results reported as ug/l (PPB)

Aqua Tech Environmental Consultants, Inc.
P. O. Box 76
Melmore, Ohio 44845

Chemical Waste Management
Misc. Volatile Organics
SW-846; Method 8240; 8015
Date Received: 05/01/90

ATEC Sample No.	5684
Client Identification	Tank #W-5 Rinse Water
Date Collected	05/01/90
Analyst	REB
Date Analyzed	05/02/90
Acetone	< 50.0
n-Butyl Alcohol	< 50.0
Carbon Disulfide	< 5.0
Carbon Tetrachloride	< 5.0
Chloroform	< 5.0
Chlorobenzene	< 5.0
Cyclohexanone	< 5.0
o-Dichlorobenzene	< 5.0
2-Ethoxyethanol	< 50.0
Ethyl Acetate	< 50.0
Ethyl Benzene	< 5.0
Ethyl Ether	< 5.0
Isobutanol	< 50.0
Methanol	< 250
Methylene Chloride	< 5.0
Methyl Ethyl Ketone	< 50.0
Methyl Isobutyl Ketone	< 50.0
2-Nitropropane	< 50.0
Pyridine	< 100
Tetrachloroethylene	< 5.0
Toluene	< 5.0
1,1,1-Trichloroethane	< 5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10.0
Trichloroethylene	< 5.0
Trichlorofluoromethane	< 5.0
Total Xylenes	< 5.0

Above Results are in ug/l (ppb).

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Water
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: Tank W5 Rinsewater

Method No.: EPA-608
Date Received: 05/01/90
Date Extracted: 05/01/90
Date Analyzed: 05/02/90
Atec Sample No.: 5684

PCB-1016	< 1.0
PCB-1221	< 1.0
PCB-1232	< 1.0
PCB-1242	< 1.0
PCB-1248	< 1.0
PCB-1254	< 1.0
PCB-1260	< 1.0

All results are reported as ug/l (PPB).

AQUA TECH
ENVIRONMENTAL CONSULTANTS, INC.

P.O. Box 78, Mansfield, Ohio 44901, 419-347-7858 or 347-5997
P.O. Box 438, 181 South Main Street, Marion, Ohio 43302, 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D 05-02-1990
DATE REP'D. 05-04-1990
P.O. # 831292
LAB NO. 6281 90
CLIENT NO. 10030
SAMPLE LOCATION 01
SAMPLED BY DARRIN SMITH
DATE SAMPLED 05-01-1990
TIME SAMPLED 07:00

DARRIN SMITH
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	60	UG/L	05-04-1990
01007	BARIUM, TOTAL, BA	<500	UG/L	05-04-1990
01027	CADMIUM, TOTAL, CD	<100	UG/L	05-04-1990
01034	CHROMIUM, TOTAL, CR	1500	UG/L	05-04-1990
01051	LEAD, TOTAL, PB	1000	UG/L	05-04-1990
71900	MERCURY, TOTAL, HG	5.0	UG/L	05-04-1990
01147	SELENIUM, TOTAL, SE	<50	UG/L	05-04-1990
01077	SILVER, TOTAL, AG	<100	UG/L	05-04-1990
01067	NICKEL, TOTAL, NI	300	UG/L	05-04-1990
00720	CYANIDE, TOTAL, CN	1.81	MG/L	05-02-1990
32730	PHENOLS, 4-AAP	0.809	MG/L	05-04-1990

LABORATORY CERTIFICATION # 4053

SIGNED Sidney A. Smith

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AQUA TECH
ENVIRONMENTAL CONSULTANTS, INC.
P.O. Box 76, Mellrose, Ohio 44845. 419-387-7659 or 387-2222
P.O. Box 436, 181 South Main Street, Marion, Ohio 43302, 614-387-5091

W-7
rinsate

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-24-1990
DATE REP'D. 04-30-1990
P.O. # 831293

LAB NO. 5737-90
CLIENT NO. 10030

SAMPLE LOCATION 01
SAMPLED BY DARRIN SMITH

DATE SAMPLED 04-23-1990
TIME SAMPLED 13:00

ENRAC
CHEMICAL WASTE MANAGEMENT
100 NASSAU PARK BLVD
PRINCETON NJ 08540

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	220	UG/L	04-27-1990
01007	BARIUM, TOTAL, BA	<50	UG/L	04-27-1990
01027	CADMIUM, TOTAL, CD	2	UG/L	04-27-1990
01034	CHROMIUM, TOTAL, CR	80	UG/L	04-27-1990
01051	LEAD, TOTAL, PB	6.1	UG/L	04-27-1990
71900	MERCURY, TOTAL, HG	<0.2	UG/L	04-25-1990
01147	SELENIUM, TOTAL, SE	<10	UG/L	04-27-1990
01077	SILVER, TOTAL, AG	10	UG/L	04-27-1990
00720	CYANIDE, TOTAL, CN	0.092	MG/L	04-25-1990
32730	PHENOLS, 4-AAP	0.072	MG/L	04-29-1990

ok

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

AQUA TECH ENVIRONMENTAL CONSULTANTS INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Water
Analysis Performed: Purgeable Organics
Analyst: REB
Client Sample No.: Rinse Water Tank #W-7

Project No.: 67168
Date Received: 04/23/90
Date Analyzed: 04/25/90
Method No.: SW-846; 8240
ATEC Sample No.: 5203

Acrolein	< 100
Acrylonitrile	< 100
Benzene	< 5.0
Bromoform	< 10.0
Carbon Tetrachloride	< 5.0
Chlorobenzene	< 5.0
Chlorodibromomethane	< 5.0
Chloroethane	< 10.0
2-Chloroethyl Vinyl Ether	< 10.0
Chloroform	< 5.0
Dichlorobromomethane	< 5.0
Chlorodifluoromethane	< 10.0
1,1-Dichloroethane	< 5.0
1,2-Dichloroethane	< 5.0
1,1-Dichloroethene	< 5.0
1,2-Dichloropropane	< 5.0
cis-1,3-Dichloropropene	< 5.0
trans-1,3-Dichloropropene	< 5.0
Ethyl Benzene	< 5.0
Methyl Bromide	< 10.0
Methyl Chloride	< 10.0
Methylene Chloride	< 10.0
1,1,2,2-Tetrachloroethane	< 5.0
Tetrachloroethene	< 5.0
Toluene	< 5.0
cis-1,2-Dichloroethene	< 5.0
trans-1,2-Dichloroethene	< 5.0
1,1,1-Trichloroethane	< 5.0
1,1,2-Trichloroethane	< 5.0
Trichloroethene	< 5.0
Trichlorofluoromethane	< 10.0
Vinyl Chloride	< 10.0
Total Xylenes	< 5.0

All results reported as ug/l (PPB)

Aqua Tech Environmental Consultants, Inc.
P. O. Box 76
Melmore, Ohio 44845

Chemical Waste Management
Misc. Volatile Organics
SW-846; Method 8240; 8015
Date Received: 04/23/90

ATEC Sample No.	5203
Client Identification	Tank #W-7 Rinse Water
Date Collected	04/23/90
Analyst	REB
Date Analyzed	04/25/90

Acetone	< 50.0
n-Butyl Alcohol	< 50.0
Carbon Disulfide	< 5.0
Carbon Tetrachloride	< 5.0
Chloroform	< 5.0
Chlorobenzene	< 5.0
Cyclohexanone	< 5.0
o-Dichlorobenzene	< 5.0
2-Ethoxyethanol	< 50.0
Ethyl Acetate	< 50.0
Ethyl Benzene	< 5.0
Ethyl Ether	< 5.0
Isobutanol	< 50.0
Methanol	< 250
Methylene Chloride	< 5.0
Methyl Ethyl Ketone	< 50.0
Methyl Isobutyl Ketone	< 50.0
2-Nitropropane	< 50.0
Pyridine	< 100
Tetrachloroethylene	< 5.0
Toluene	< 5.0
1,1,1-Trichloroethane	< 5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10.0
Trichloroethylene	< 5.0
Trichlorofluoromethane	< 5.0
Total Xylenes	< 5.0

Above Results are in ug/l (ppb).

ok

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Water
Analysis Performed: PCB's
Analyst: CMB
Client Sample No.: Rinse Water Tank #W-7

Method No.: EPA-608
Date Received: 04/23/90
Date Extracted: 04/24/90
Date Analyzed: 04/25/90
Atec Sample No.: 5203

PCB-1016	< 1.0
PCB-1221	< 1.0
PCB-1232	< 1.0
PCB-1242	< 1.0
PCB-1248	< 1.0
PCB-1254	< 1.0
PCB-1260	< 1.0

All results are reported as ug/l (PPB).

ck

ATTACHMENT B

1990 SOIL ANALYSIS RESULTS

BOWSER MORNER

Sol 3

AQUA TECH
ENVIRONMENTAL CONSULTANTS, INC
P.O. Box 70, Mesopotamia, Ohio 44441 419-397-2655 or 397-2222
P.O. Box 430, 181 South Main Street, Marion, Ohio 43302 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-03-1990
DATE REP'D. 05-10-1990
P.O. # 831610
LAB NO. 6346-90
CLIENT NO. 10030
SAMPLE LOCATION S-5
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-02-1990
TIME SAMPLED 12:30

KIRK STEMPLE
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	1.43	MG/KG	05-08-1990
32730	PHENOLS, 4-AAP	0.352	MG/KG	05-08-1990
00500	RESIDUE, TOTAL (TS)	72.4	%	05-07-1990
00001	EP TOXICITY TEST:	--	--	05-04-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-09-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-09-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-09-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-09-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-09-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-07-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-09-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-09-1990

LABORATORY CERTIFICATION # 4053

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AQUA TECH
ENVIRONMENTAL CONSULTANTS INC
P.O. Box 76 Melmore Ohio 44845 419-397-2659 or 397-2222
P.O. Box 430 181 South Main Street Marion Ohio 43302 614-387-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-03-1990
DATE REP'D. 05-10-1990
P.O. # 831610

LAB NO. A347-90
CLIENT NO. T0030

SAMPLE LOCATION 3-7
SAMPLED BY DARREN SMITH

DATE SAMPLED 05-02-1990
TIME SAMPLED 12:30

KIRK STEMPLE
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	1.03	MG/KG	05-08-1990
32730	PHENOLS, 4-AAP	0.145	MG/KG	05-08-1990
00500	RESIDUE, TOTAL (TS)	78.1	%	05-07-1990
00001	EP TOXICITY TEST:	---	---	05-04-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-09-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-09-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-09-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-09-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-09-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-07-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-09-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-09-1990

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P.O. Box 436 181 South Main Street, Marion Ohio 43302 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-03-1990
DATE REP'D. 05-10-1990
P.O. # 831610
LAB NO. 6348-90
CLIENT NO. 10030
SAMPLE LOCATION 3-10
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-02-1990
TIME SAMPLED 12:30

KIRK STEMPLE
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.85	MG/KG	05-08-1990
32730	PHENOLS, 4-AAP	0.193	MG/KG	05-08-1990
00500	RESIDUE, TOTAL (TS)	66.1	%	05-07-1990
00001	EP TOXICITY TEST:	--	--	05-04-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-09-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-09-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-09-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-09-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-09-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-07-1990
01147	SELENIUM, TOTAL, SE	<0.05	MG/L	05-09-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-09-1990

LABORATORY CERTIFICATION # 4053

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AQUA TECH
ENVIRONMENTAL CONSULTANTS INC
P.O. Box 76 Melmore Ohio 44845 419-397-2659 or 397-2227
P.O. Box 436 161 South Main Street Marion Ohio 43302 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-03-1990
DATE REP'D. 05-10-1990
P.O. # 831610

LAB NO. 6349-90
CLIENT NO. 10030

SAMPLE LOCATION 3-12
SAMPLED BY DARREN SMITH

DATE SAMPLED 05-02-1990
TIME SAMPLED 12:30

KIRK STEMPLE
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	1.43	MG/KG	05-08-1990
32730	PHENOLS, 4-AAP	0.074	MG/KG	05-08-1990
00500	RESIDUE, TOTAL (TS)	73.0	%	05-07-1990
00001	EP TOXICITY TEST:	--	--	05-04-1990
01002	ARSENIC, TOTAL, AS	0.03	MG/L	05-09-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-09-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-09-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-09-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-09-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-07-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-09-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-09-1990

LABORATORY CERTIFICATION # 4053

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AQUA TECH
ENVIRONMENTAL CONSULTANTS, INC.
P.O. Box 76 Melmore, Ohio 44845 419-397-2659 or 397-2221
P.O. Box 436 181 South Main Street Marion, Ohio 43302 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-03-1990
DATE REP'D. 05-10-1990
P.O. # 831610
LAB NO. 6350-90
CLIENT NO. 10030
SAMPLE LOCATION 3-17
SAMPLED BY DARRIN SMITH
DATE SAMPLED 05-02-1990
TIME SAMPLED 12:30

KIRK STEMPLE
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.39	MG/KG	05-08-1990
32730	PHENOLS, 4-AAP	0.341	MG/KG	05-08-1990
00500	RESIDUE, TOTAL (TS)	92.2	%	05-07-1990
00001	EP TOXICITY TEST:	--	--	05-04-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-09-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-09-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-09-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-09-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-09-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-07-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-09-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-09-1990

LABORATORY CERTIFICATION # 4053

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-03-1990
DATE REP'D. 05-10-1990
P.O. # 031610

LAB NO. 6351-90
CLIENT NO. 10030

SAMPLE LOCATION 3-18
SAMPLED BY DARREN SMITH

DATE SAMPLED 05-02-1990
TIME SAMPLED 12:30

KIRK STEMPLE
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.51	MG/KG	05-08-1990
32730	PHENOLS, 4-AAP	0.168	MG/KG	05-08-1990
00500	RESIDUE, TOTAL (TS)	79.8	%	05-07-1990
00001	EP TOXICITY TEST:	--	--	05-04-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-09-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-09-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-09-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-09-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-09-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-07-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-09-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-09-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-03-1990
DATE REP'D. 05-10-1990
P.O. # 831610
LAB NO. 6452-90
CLIENT NO. 10030
SAMPLE LOCATION 3-19
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-02-1990
TIME SAMPLED 12:30

KIRK STEMPLE
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.08	MG/KG	05-08-1990
32730	PHENOLS, 4-AAP	0.174	MG/KG	05-08-1990
00500	RESIDUE, TOTAL (TS)	86.5	%	05-07-1990
00001	EP TOXICITY TEST:	--	--	05-04-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-09-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-09-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-09-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-09-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-09-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-07-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-09-1990
01077	SILVER, TOTAL, AG	0.05	MG/L	05-09-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-03-1990
DATE REP'D. 05-10-1990
P.O. # 831610
LAB NO. 6353-90
CLIENT NO. 10030
SAMPLE LOCATION 3-20
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-02-1990
TIME SAMPLED 12:30

KIRK STEMPLE
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.29	MG/KG	05-08-1990
32730	PHENOLS, 4-AAP	0.280	MG/KG	05-08-1990
00500	RESIDUE, TOTAL (TS)	76.9	%	05-07-1990
00001	EP TOXICITY TEST:	---	---	05-04-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-09-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-09-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-09-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-09-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-09-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-07-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-09-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-09-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-03-1990
DATE REP'D. 05-10-1990
P.O. # 831610
LAB NO. 6354-90
CLIENT NO. 10030

SAMPLE LOCATION S-21
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-02-1990
TIME SAMPLED 12:30

KIRK STEMPLE
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.20	MG/KG	05-08-1990
32730	PHENOLS, 4-AAP	0.067	MG/KG	05-08-1990
00500	RESIDUE, TOTAL (TS)	92.4	%	05-07-1990
00001	EP TOXICITY TEST:	--	--	05-04-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-09-1990
01007	BARIUM, TOTAL, BA	0.6	MG/L	05-09-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-09-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-09-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-09-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-07-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-09-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-09-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-03-1990
DATE REP'D. 05-10-1990
P.O # 831610
LAB NO. 6355-90
CLIENT NO. 10030

SAMPLE LOCATION 3-22
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-02-1990
TIME SAMPLED 12:30

KIRK STEMPLE
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH - 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.10	MG/KG	05-08-1990
32730	PHENOLS, 4-AAP	0.166	MG/KG	05-09-1990
00500	RESIDUE, TOTAL (TS)	94.2	%	05-07-1990
00001	EP TOXICITY TEST:	--	--	05-04-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-09-1990
01007	BARIUM, TOTAL, BA	0.5	MG/L	05-09-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-09-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-09-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-09-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-07-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-09-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-09-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-03-1990
DATE REP'D. 05-10-1990
P.O. # 831610
LAB NO. 6356-90
CLIENT NO. 10030

SAMPLE LOCATION 3-23
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-02-1990
TIME SAMPLED 12:30

KIRK STEMPLE
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.064	MG/KG	05-08-1990
32730	PHENOLS, 4-AAP	<0.063	MG/KG	05-08-1990
00500	RESIDUE, TOTAL (TS)	82.2	%	05-07-1990
00001	EP TOXICITY TEST:	--	--	05-05-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-09-1990
01007	BARIUM, TOTAL, BA	0.9	MG/L	05-09-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-09-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-09-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-09-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-07-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-09-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-09-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-03-1990
DATE REP'D. 05-11-1990
P.O. # P31610
LAB NO. 4350-90
CLIENT NO. 16439
SAMPLE LOCATION 3-24
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-02-1990
TIME SAMPLED 12:30

KIRK STUMPF
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.055	MG/L	05-10-1990
32730	PHENOLS, 4-AAP	0.040	MG/L	05-10-1990
00500	RESIDUE, TOTAL (TS)	83.7	%	05-07-1990
00001	EP TOXICITY TEST:	--	--	05-05-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-09-1990
01007	BARIUM, TOTAL, BA	1.1	MG/L	05-09-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-09-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-09-1990
1051	LEAD, TOTAL, PB	<0.5	MG/L	05-09-1990
1900	MERCURY, TOTAL, HG	<2.0	UG/L	05-07-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-09-1990
01077	SILVER, TOTAL, AG	0.05	MG/L	05-09-1990

LABORATORY CERTIFICATION # 4053

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Soil 3

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 3-5
PERCENT SOLIDS: 73.8

METHOD: 8240; 8015
DATE RECEIVED: 5/2/90
DATE ANALYZED: 5/9/90
LAB NOTEBOOK NO.: A9347
ATEC NO.: 5801

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-5

Method No.: SW-846; 8080
Date Received: 05/02/90
Date Extracted: 05/07/90
Date Analyzed: 05/09/90
Atec Sample No.: 5801

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 3-7
PERCENT SOLIDS: 76.5

METHOD: 8240; 8015
DATE RECEIVED: 5/2/90
DATE ANALYZED: 5/9/90
LAB NOTEBOOK NO.: A9348
ATEC NO.: 5802

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-7

Method No.: SW-846; 8080
Date Received: 05/02/90
Date Extracted: 05/07/90
Date Analyzed: 05/09/90
Atec Sample No.: 5802

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 3-10
PERCENT SOLIDS: 69.7

METHOD: 8240; 8015
DATE RECEIVED: 5/2/90
DATE ANALYZED: 5/9/90
LAB NOTEBOOK NO.: A9349
ATEC NO.: 5803

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-10

Method No.: SW-846; 8080
Date Received: 05/02/90
Date Extracted: 05/07/90
Date Analyzed: 05/09/90
Atec Sample No.: 5803

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 3-12
PERCENT SOLIDS: 76.5

METHOD: 8240; 8015
DATE RECEIVED: 5/2/90
DATE ANALYZED: 5/9/90
LAB NOTEBOOK NO.: A9350
ATEC NO.: 5804

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-12

Method No.: SW-846; 8080
Date Received: 05/02/90
Date Extracted: 05/07/90
Date Analyzed: 05/09/90
Atec Sample No.: 5804

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 3-17
PERCENT SOLIDS: 83.0

METHOD: 8240; 8015
DATE RECEIVED: 5/2/90
DATE ANALYZED: 5/9/90
LAB NOTEBOOK NO.: A9351
ATEC NO.: 5805

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-17

Method No.: SW-846; 8080
Date Received: 05/02/90
Date Extracted: 05/07/90
Date Analyzed: 05/09/90
Atec Sample No.: 5805

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 3-18
PERCENT SOLIDS: 78.4

METHOD: 8240; 8015
DATE RECEIVED: 5/2/90
DATE ANALYZED: 5/9/90
LAB NOTEBOOK NO.: A9352
ATEC NO.: 5806

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-18

Method No.: SW-846; 8080
Date Received: 05/02/90
Date Extracted: 05/07/90
Date Analyzed: 05/09/90
Atec Sample No.: 5806

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 3-19
PERCENT SOLIDS: 85.0

METHOD: 8240; 8015
DATE RECEIVED: 5/2/90
DATE ANALYZED: 5/9/90
LAB NOTEBOOK NO.: A9387
ATEC NO.: 5807

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-19

Method No.: SW-846; 8080
Date Received: 05/02/90
Date Extracted: 05/07/90
Date Analyzed: 05/09/90
Atec Sample No.: 5807

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 3-20
PERCENT SOLIDS: 77.9

METHOD: 8240; 8015
DATE RECEIVED: 5/2/90
DATE ANALYZED: 5/9/90
LAB NOTEBOOK NO.: A9354
ATEC NO.: 5808

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-20

Method No.: SW-846; 8080
Date Received: 05/02/90
Date Extracted: 05/07/90
Date Analyzed: 05/09/90
Atec Sample No.: 5808

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 3-21
PERCENT SOLIDS: 92.5

METHOD: 8240; 8015
DATE RECEIVED: 5/2/90
DATE ANALYZED: 5/9/90
LAB NOTEBOOK NO.: A9355
ATEC NO.: 5809

RESULTS

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-21

Method No.: SW-846; 8080
Date Received: 05/02/90
Date Extracted: 05/07/90
Date Analyzed: 05/09/90
Atec Sample No.: 5809

PCB-1016		< 0.5
PCB-1221		< 0.5
PCB-1232		< 0.5
PCB-1242		< 0.5
PCB-1248		< 0.5
PCB-1254		< 0.5
PCB-1260	1.3	[redacted]

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 3-22
PERCENT SOLIDS: 92.0

METHOD: 8240; 8015
DATE RECEIVED: 5/2/90
DATE ANALYZED: 5/9/90
LAB NOTEBOOK NO.: A9356
ATEC NO.: 5810

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-22

Method No.: SW-846; 8080
Date Received: 05/02/90
Date Extracted: 05/07/90
Date Analyzed: 05/09/90
Atec Sample No.: 5810

PCB-1016		< 0.5
PCB-1221		< 0.5
PCB-1232		< 0.5
PCB-1242		< 0.5
PCB-1248		< 0.5
PCB-1254		< 0.5
PCB-1260	2.1	[redacted]

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 3-23
PERCENT SOLIDS: 80.3

METHOD: 8240; 8015
DATE RECEIVED: 5/2/90
DATE ANALYZED: 5/9/90
LAB NOTEBOOK NO.: A9357
ATEC NO.: 5811

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-23

Method No.: SW-846; 8080
Date Received: 05/02/90
Date Extracted: 05/07/90
Date Analyzed: 05/09/90
Atec Sample No.: 5811

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 3-24
PERCENT SOLIDS: 84.1

METHOD: 8240; 8015
DATE RECEIVED: 5/2/90
DATE ANALYZED: 5/9/90
LAB NOTEBOOK NO.: A9358
ATEC NO.: 5812

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-24

Method No.: SW-846; 8080
Date Received: 05/02/90
Date Extracted: 05/07/90
Date Analyzed: 05/09/90
Atec Sample No.: 5812

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8153
Client Description:	3-2-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	75.4

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8154
Client Description:	3-7-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	82.1

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8155
Client Description:	3-9-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	75.3

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8156
Client Description:	3-15-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	82.7

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44849

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8157
Client Description:	3-18-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	84.7

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8158
Client Description:	3-19-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	87.2

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8159
Client Description:	3-23-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	95.8

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8160
Client Description:	3-25-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	84.5

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8161
Client Description:	3-28-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	84.6

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8162
Client Description:	3-32-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	84.7

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8135
Client Description:	3-29-2
Date Received:	6/14/90
Date Analyzed:	6/15/90
Analyst:	DWH
Percent Solids:	85.6

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-29-2
Percent Solids: 86.34

Method No.: SW846; 8080
Date Received: 06/14/90
Date Extracted: 06/19/90
Date Analyzed: 06/26/90
Atec Sample No.: 8135

R E S U L T S

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 3-22-2
Percent Solids: 89.70

Method No.: SW846; 8080
Date Received: 06/14/90
Date Extracted: 06/19/90
Date Analyzed: 06/26/90
Atec Sample No.: 8136

R E S U L T S

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8136
Client Description:	3-22-2
Date Received:	6/14/90
Date Analyzed:	6/15/90
Analyst:	DWH
Percent Solids:	90.1

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

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ENVIRONMENTAL CONSULTANTS, INC.
P.O. Box 76, Melmore, Ohio 44845. 419-397-2659 or 397-2222
P.O. Box 436, 181 South Main Street, Marion, Ohio 43302. 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990 P.O. # 831610

LAB NO. 10-9109-90
CLIENT NO. 10039

SAMPLE LOCATION 3-2-2 (8765-90)
SAMPLED BY JOHN TOMPKINS

DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

KIRK STEMPLE
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	12	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	61	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	18	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	19	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.14	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<6	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	<0.6	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9110-90
CLIENT NO. I0030

SAMPLE LOCATION 3-7-2 (8766-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	16	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	85	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.7	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	21	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	13	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.09	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<7	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	<0.7	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9111-90
CLIENT NO. I0030

SAMPLE LOCATION 3-9-2 (8767-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	6	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	54	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.3	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	12	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	32	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.05	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<3	MG/KG	06-27-1990
077	SILVER, TOTAL, AG	<0.3	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9112-90
CLIENT NO. I0030
SAMPLE LOCATION 3-15-2 (8768-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	9	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	98	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.5	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	15	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	10	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.02	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<5	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	<0.5	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9113-90
CLIENT NO. I0030

SAMPLE LOCATION 3-18-2 (8769-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	6	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	20	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.4	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	4	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	4	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	<0.01	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<4	MG/KG	06-27-1990
077	SILVER, TOTAL, AG	<0.4	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9114-90
CLIENT NO. I0030

SAMPLE LOCATION 3-19-2 (8770-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	15	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	51	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	13	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	17	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.20	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<6	MG/KG	06-27-1990
1077	SILVER, TOTAL, AG	<0.6	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

D. 06-21-1990
D. 07-03-1990

P.O. # 031610

LAB NO. 9191-90
CLIENT NO. 10030

OCATION 3-22-2
BY JOHN TOMPKINS

DATE SAMPLED 06-13-1990
TIME SAMPLED 17:00

WASTE MGMT.
ST.RT. 412
RY OH 43464

COMMENTS:

ET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
02	ARSENIC, TOTAL, AS	2	MG/KG	07-02-1990
07	BARIUM, TOTAL, BA	9	MG/KG	07-02-1990
27	CADMIUM, TOTAL, CD	<0.4	MG/KG	07-02-1990
34	CHROMIUM, TOTAL, CR	4	MG/KG	07-02-1990
29	CYANIDE, TOTAL, CN	<0.20	MG/KG	07-01-1990
151	LEAD, TOTAL, PB	12	MG/KG	07-02-1990
900	MERCURY, TOTAL, HG	<0.09	MG/KG	06-25-1990
730	PHENOLS, 4-AAP	<0.10	MG/KG	07-02-1990
500	RESIDUE, TOTAL (TS)	89.7	%	06-24-1990
147	SELENIUM, TOTAL, SE	<4	MG/KG	07-02-1990
077	SILVER, TOTAL, AG	3	MG/KG	07-02-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610

LAB NO. 10-9115-90
CLIENT NO. I0030

SAMPLE LOCATION 3-23-2 (8771-90)
SAMPLED BY JOHN TOMPKINS

DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	13	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	180	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.5	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	16	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	15	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.06	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<5	MG/KG	06-27-1990
077	SILVER, TOTAL, AG	<0.5	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9116-90
CLIENT NO. I0030

SAMPLE LOCATION 3-~~28~~ 25-2 (8772-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	17	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	91	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	16	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	12	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.07	MG/KG	06-22-1990
1147	SELENIUM, TOTAL, SE	<6	MG/KG	06-27-1990
1077	SILVER, TOTAL, AG	<0.6	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9117-90
CLIENT NO. I0030

SAMPLE LOCATION 3-28-2 (8773-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	19	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	95	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.5	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	20	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	15	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.08	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<5	MG/KG	06-27-1990
1077	SILVER, TOTAL, AG	0.5	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-21-1990
DATE REP'D. 07-03-1990
P.O. # 031610
LAB NO. 9192-90
CLIENT NO. 10830

SAMPLE LOCATION 3-29-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 10:00

--
CHEMICAL WASTE MGMT.
4956 ST.RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	14	MG/KG	06-28-1990
01007	BARIUM, TOTAL, BA	56	MG/KG	06-28-1990
01027	CADMIUM, TOTAL, CD	<0.5	MG/KG	06-28-1990
01034	CHROMIUM, TOTAL, CR	13	MG/KG	06-28-1990
00720	CYANIDE, TOTAL, CN	0.36	MG/KG	07-01-1990
01051	LEAD, TOTAL, PB	10	MG/KG	06-28-1990
71900	MERCURY, TOTAL, HG	0.06	MG/KG	06-25-1990
730	PHENOLS, 4-AAP	<0.10	MG/KG	07-02-1990
00500	RESIDUE, TOTAL (TS)	87.8	%	06-24-1990
01147	SELENIUM, TOTAL, SE	<2	MG/KG	06-28-1990
01077	SILVER, TOTAL, AG	<0.5	MG/KG	06-28-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9118-90
CLIENT NO. I0030

SAMPLE LOCATION 3-32-2 (8774-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	8	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	39	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	6	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	6	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.04	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<3	MG/KG	06-27-1990
077	SILVER, TOTAL, AG	<0.6	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-02-1990
P.O. # 831610

LAB NO. 5765-90
CLIENT NO. T5030

SAMPLE LOCATION 3-2-2
SAMPLED BY JOHN TOMPKINS

DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-21-1990
00500	RESIDUE, TOTAL (TS)	70.4	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-02-1990
P.O. # 831610
LAB NO. 9766-90
CLIENT NO. I0030

SAMPLE LOCATION 3-7-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-21-1990
00500	RESIDUE, TOTAL (TS)	74.7	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-02-1990
P.O. # 831610
LAB NO. 0767-90
CLIENT NO. 10030

SAMPLE LOCATION 3-9-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST.RT. 412
VICKERY OH 43464

COMMENTS:

STORET #	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-21-1990
00500	RESIDUE, TOTAL (TS)	74.6	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8768-90
CLIENT NO. I0030

SAMPLE LOCATION 3-15-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	85.7	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 031610
LAB NO. 8769-90
CLIENT NO. 10030

SAMPLE LOCATION 3-18-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.12	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	83.8	%	06-19-1990

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8770-90
CLIENT NO. 10030

SAMPLE LOCATION 3-19-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	83.6	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8771-90
CLIENT NO. I0030

SAMPLE LOCATION 3-23-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	94.5	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8772-90
CLIENT NO. T0030

SAMPLE LOCATION 3-25-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.37	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	78.5	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8773-90
CLIENT NO. I0030

SAMPLE LOCATION 3-28-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.89	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	81.2	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8774-90
CLIENT NO. I0030

SAMPLE LOCATION 3-32-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	75.7	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-14-1990
DATE REP'D. 06-21-1990
P.O. # 831610
LAB NO. 4915-90
CLIENT NO. 10036

SAMPLE LOCATION 4-35
SAMPLED BY DARRIN SMITH
DATE SAMPLED 05-10-1990
TIME SAMPLED 11:45

ENRAC
CHEMICAL WASTE MGMT
4956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.512	MG/KG	05-16-1990
32730	PHENOLS, 4-AAP	0.29	MG/KG	05-20-1990
00500	RESIDUE, TOTAL (TS)	84.7	%	05-15-1990
00001	EP TOXICITY TEST:	---	---	05-16-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-21-1990
01007	BARIUM, TOTAL, BA	0.5	MG/L	05-21-1990
01027	CADMIUM, TOTAL, CD	0.05	MG/L	05-21-1990
1034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-21-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-21-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-17-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-21-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-21-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-14-1990
DATE REP'D. 05-21-1990
P.O. # 031610
LAB NO. 4916-90
CLIENT NO. T0030
SAMPLE LOCATION 4-46
SAMPLED BY DARRIN SMITH
DATE SAMPLED 05-10-1990
TIME SAMPLED 11:45

ENRAC
CHEMICAL WASTE MGMT
3954 ST. RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.413	MG/KG	05-16-1990
32730	PHENOLS, 4-AAP	0.16	MG/KG	05-20-1990
00390	RESIDUE, TOTAL (TS)	77.4	%	05-15-1990
00001	EP TOXICITY TEST:	---	---	05-16-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-21-1990
01007	BARIUM, TOTAL, BA	0.5	MG/L	05-21-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-21-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-21-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-21-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-17-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-21-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-21-1990

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DATE REC'D. 05-14-1990
DATE REP'D. 05-21-1990
P.O. # 831610
LAB NO. 4917-90
CLIENT NO. I0030

SAMPLE LOCATION 4-41
SAMPLED BY DARRIN SMITH
DATE SAMPLED 05-10-1990
TIME SAMPLED 11:45

ENRAC
CHEMICAL WASTE MGMT
3956 ST. RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	1.40	MG/KG	05-16-1990
32730	PHENOLS, 4-AAP	0.078	MG/KG	05-20-1990
00500	RESIDUE, TOTAL (TS)	80.3	%	05-15-1990
00001	EP TOXICITY TEST:	---	---	05-16-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-21-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-21-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-21-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-21-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-21-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-17-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-21-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-21-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-14-1990
DATE REP'D. 05-21-1990
P.O. # 031630
LAB NO. 6918-90
CLIENT NO. T0030

SAMPLE LOCATION 4-47
SAMPLED BY DARRIN SMITH
DATE SAMPLED 05-10-1990
TIME SAMPLED 11:45

ENRAC
CHEMICAL WASTE MGMT
3956 ST. RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.331	MG/KG	05-16-1990
32730	PHENOLS, 4-AAP	<0.058	MG/KG	05-20-1990
00500	RESIDUE, TOTAL (TS)	71.2	%	05-15-1990
00001	EP TOXICITY TEST:	---	----	05-16-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-21-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-21-1990
01027	CADMIUM, TOTAL, CD	0.05	MG/L	05-21-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-21-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-21-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-17-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-21-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-21-1990

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DATE REC'D. 05-14-1990
DATE REP'D. 05-21-1990
P.O. # 831610
LAB NO. 4919-90
CLIENT NO. 10030

SAMPLE LOCATION A-49
SAMPLED BY DARRIN SMITH
DATE SAMPLED 05-10-1990
TIME SAMPLED 11:45

ENRAC
CHEMICAL WASTE MGMT
3956 ST. RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.243	MG/KG	05-16-1990
32730	PHENOLS, 4-AAP	0.084	MG/KG	05-20-1990
00500	RESIDUE, TOTAL (TS)	81.9	%	05-15-1990
00001	EP TOXICITY TEST:	---	---	05-16-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-21-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-21-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-21-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-21-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-21-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-17-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-21-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-21-1990

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Wx soil results received 9 Jun 90

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-14-1990
DATE REP'D. 06-07-1990
P.O. # 831610
LAB NO. 6920-90
CLIENT NO. I0030

SAMPLE LOCATION 4-51
SAMPLED BY DARRIN SMITH
DATE SAMPLED 05-10-1990
TIME SAMPLED 11:45

ENRAC
CHEMICAL WASTE MGMT
3956 ST. RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	2.98	MG/KG	05-18-1990
32730	PHENOLS, 4-AAP	0.15	MG/KG	05-20-1990
00500	RESIDUE, TOTAL (TS)	86.7	%	05-15-1990
00001	EP TOXICITY TEST:	--	--	05-16-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-21-1990
01007	BARIUM, TOTAL, BA	0.6	MG/L	05-21-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-21-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-21-1990
01051	LEAD, TOTAL, PB	1.0	MG/L	05-21-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-17-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-21-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-21-1990

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DATE REC'D. 05-14-1990
DATE REP'D. 06-07-1990
P.O. # 031610

LAB NO. 6921-90
CLIENT NO. I0030

SAMPLE LOCATION 4-53
SAMPLED BY DARRIN SMITH

DATE SAMPLED 05-10-1990
TIME SAMPLED 11:45

ENRAC
CHEMICAL WASTE MGMT
3956 ST. RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.25	MG/KG	05-18-1990
32730	PHENOLS, 4-AAP	0.075	MG/KG	05-20-1990
00500	RESIDUE, TOTAL (TS)	86.9	%	05-15-1990
00001	EP TOXICITY TEST:	--	--	05-16-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-21-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-21-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-21-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-21-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-21-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-17-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-21-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-21-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-14-1990
DATE REP'D. 06-07-1990
P.O. # 831610
LAB NO. 6922-90
CLIENT NO. I0030

SAMPLE LOCATION 4-55
SAMPLED BY DARRIN SMITH
DATE SAMPLED 05-10-1990
TIME SAMPLED 11:45

ENRAC
CHEMICAL WASTE MGMT
3956 ST. RT 412
VICKERY OH 43464

COMMENTS:

STORET NO.	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.21	MG/KG	05-18-1990
32730	PHENOLS, 4-AAP	<0.031	MG/KG	05-20-1990
00500	RESIDUE, TOTAL (TS)	83.3	%	05-15-1990
00001	EP TOXICITY TEST:	--	--	05-16-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-21-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-21-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-21-1990
1034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-21-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-21-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-17-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-21-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-21-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-14-1990
DATE REP'D. 06-07-1990 P.O. # 831610

LAB NO. 6923-90
CLIENT NO. I0030

SAMPLE LOCATION 4-58
SAMPLED BY DARRIN SMITH

DATE SAMPLED 05-10-1990
TIME SAMPLED 11:45

ENRAC
CHEMICAL WASTE MGMT
3956 ST. RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.28	MG/KG	05-18-1990
32730	PHENOLS, 4-AAP	<0.029	MG/KG	05-20-1990
00500	RESIDUE, TOTAL (TS)	82.7	%	05-15-1990
00001	EP TOXICITY TEST:	--	--	05-16-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-21-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-21-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-21-1990
334	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-21-1990
051	LEAD, TOTAL, PB	<0.5	MG/L	05-21-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-17-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-21-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-21-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-14-1990
DATE REP'D. 06-07-1990
P.O. # 831610
LAB NO. 6924-90
CLIENT NO. I0030
SAMPLE LOCATION 4-60
SAMPLED BY DARRIN SMITH
DATE SAMPLED 05-10-1990
TIME SAMPLED 11:45

ENRAC
CHEMICAL WASTE MGMT
3956 ST. RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.27	MG/KG	05-18-1990
32730	PHENOLS, 4-AAP	<0.037	MG/KG	05-20-1990
00500	RESIDUE, TOTAL (TS)	83.8	%	05-15-1990
00001	EP TOXICITY TEST:	--	--	05-17-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-21-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-21-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-21-1990
1034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-21-1990
1051	LEAD, TOTAL, PB	<0.5	MG/L	05-21-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-18-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-21-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-21-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-14-1990
DATE REP'D. 06-07-1990
P.O. # 831610
LAB NO. 6925-90
CLIENT NO. I0030

SAMPLE LOCATION 4-62
SAMPLED BY DARRIN SMITH
DATE SAMPLED 05-10-1990
TIME SAMPLED 11:45

ENRAC
CHEMICAL WASTE MGMT
3956 ST. RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	1.25	MG/KG	05-18-1990
32730	PHENOLS, 4-AAP	<0.11	MG/KG	05-20-1990
00500	RESIDUE, TOTAL (TS)	77.3	%	05-15-1990
00001	EP TOXICITY TEST:	--	--	05-19-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-21-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-21-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-21-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-21-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-21-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-18-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-21-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-21-1990

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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AQUA TECH
ENVIRONMENTAL CONSULTANTS, INC
P.O. Box 76, Melmore, Ohio 44845, 419-397-2659 or 397-2222
P.O. Box 436, 181 South Main Street, Marion, Ohio 43302, 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-14-1990
DATE REP'D. 06-07-1990
P.O. # 831610
LAB NO. 6926-90
CLIENT NO. I0030

SAMPLE LOCATION 4-64
SAMPLED BY DARRIN SMITH
DATE SAMPLED 05-10-1990
TIME SAMPLED 11:45

ENRAC
CHEMICAL WASTE MGMT
3956 ST. RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.27	MG/KG	05-18-1990
32730	PHENOLS, 4-AAP	<0.038	MG/KG	05-20-1990
00500	RESIDUE, TOTAL (TS)	85.5	%	05-15-1990
00001	EP TOXICITY TEST:	---	--	05-19-1990
01002	ARSENIC, TOTAL, AS	<0.03	MG/L	05-21-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-21-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-21-1990
1034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-21-1990
051	LEAD, TOTAL, PB	<0.5	MG/L	05-21-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-18-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-21-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-21-1990

LABORATORY CERTIFICATION # 4053

SIGNED Stephanie A. Smith

COPY DISTRIBUTION: WHITE - CLIENT YELLOW - FILE

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 4-35
PERCENT SOLIDS: 83.1

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/15/90
LAB NOTEBOOK NO.: A9563
ATEC NO.: 6338

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	0.177
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	[illegible] 0.081
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 4-35
Percent Solids: 83.10

Method No.: SW846; 8080
Date Received: 05/10/90
Date Extracted: 05/12/90
Date Analyzed: 05/17/90
Atec Sample No.: 6338

RESULTS	
PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 4-40
PERCENT SOLIDS: 83.3

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/15/90
LAB NOTEBOOK NO.: A9547
ATEC NO.: 6339

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	~~0.092~~ 0.092
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 4-40
Percent Solids: 83.31

Method No.: SW846; 8080
Date Received: 05/10/90
Date Extracted: 05/12/90
Date Analyzed: 05/17/90
Atec Sample No.: 6339

R E S U L T S

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 4-41
PERCENT SOLIDS: 83.3

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/15/90
LAB NOTEBOOK NO.: A9565
ATEC NO.: 6340

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	[illegible] 0.029
1,1,2-Trichlorotrifluoroethane	< [illegible] < 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 4-41
Percent Solids: 83.31

Method No.: SW846; 8080
Date Received: 05/10/90
Date Extracted: 05/12/90
Date Analyzed: 05/17/90
Atec Sample No.: 6340

RESULTS	
PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 4-47
PERCENT SOLIDS: 73.2

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/15/90
LAB NOTEBOOK NO.: A9530
ATEC NO.: 6341

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	[redacted] 0.081
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 4-47
Percent Solids: 73.18

Method No.: SW846; 8080
Date Received: 05/10/90
Date Extracted: 05/12/90
Date Analyzed: 05/17/90
Atec Sample No.: 6341

RESULTS	
PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 4-49
PERCENT SOLIDS: 82.4

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/15/90
LAB NOTEBOOK NO.: A9550
ATEC NO.: 6342

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 4-49
Percent Solids: 82.40

Method No.: SW846; 8080
Date Received: 05/10/90
Date Extracted: 05/12/90
Date Analyzed: 05/17/90
Atec Sample No.: 6342

R E S U L T S

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 4-51
PERCENT SOLIDS: 85.8

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/15/90
LAB NOTEBOOK NO.: A9532
ATEC NO.: 6343

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 4-51
Percent Solids: 85.83

Method No.: SW846; 8080
Date Received: 05/10/90
Date Extracted: 05/12/90
Date Analyzed: 05/17/90
Atec Sample No.: 6343

RESULTS	
PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 4-53
PERCENT SOLIDS: 86.9

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/15/90
LAB NOTEBOOK NO.: A9533
ATEC NO.: 6344

RESULTS

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 4-53
Percent Solids: 86.86

Method No.: SW846; 8080
Date Received: 05/10/90
Date Extracted: 05/12/90
Date Analyzed: 05/17/90
Atec Sample No.: 6344

R E S U L T S

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 4-55
PERCENT SOLIDS: 84.6

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/15/90
LAB NOTEBOOK NO.: A9534
ATEC NO.: 6345

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 4-55
Percent Solids: 84.59

Method No.: SW846: 8080
Date Received: 05/10/90
Date Extracted: 05/12/90
Date Analyzed: 05/17/90
Atec Sample No.: 6345

R E S U L T S

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 4-58
PERCENT SOLIDS: 82.6

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/15/90
LAB NOTEBOOK NO.: A9535
ATEC NO.: 6346

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 4-58
Percent Solids: 82.64

Method No.: SW846; 8080
Date Received: 05/10/90
Date Extracted: 05/12/90
Date Analyzed: 05/17/90
Ateo Sample No.: 6346

RESULTS	
PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 4-60
PERCENT SOLIDS: 83.1

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/15/90
LAB NOTEBOOK NO.: A9555
ATEC NO.: 6347

RESULTS

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 4-60
Percent Solids: 83.07

Method No.: SW846; 8080
Date Received: 05/10/90
Date Extracted: 05/12/90
Date Analyzed: 05/17/90
Atec Sample No.: 6347

R E S U L T S

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 4-62
PERCENT SOLIDS: 81.1

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/15/90
LAB NOTEBOOK NO.: A9537
ATEC NO.: 6348

RESULTS

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

1 results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 4-62
Percent Solids: 81.09

Method No.: SW846; 8080
Date Received: 05/10/90
Date Extracted: 05/12/90
Date Analyzed: 05/17/90
Atec Sample No.: 6348

RESULTS	
PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 4-64
PERCENT SOLIDS: 84.6

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/15/90
LAB NOTEBOOK NO.: A9538
ATEC NO.: 6349

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 4-64
Percent Solids: 84.55

Method No.: SW846; 8080
Date Received: 05/10/90
Date Extracted: 05/12/90
Date Analyzed: 05/17/90
Atec Sample No.: 6349

R E S U L T S

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8137
Client Description:	4-37-2
Date Received:	6/14/90
Date Analyzed:	6/15/90
Analyst:	DWH
Percent Solids:	73.1

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005
Chlorobenzene	0.015

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8138
Client Description:	4-39-2
Date Received:	6/14/90
Date Analyzed:	6/15/90
Analyst:	DWH
Percent Solids:	79.9

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005
Chlorobenzene	0.033

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8139
Client Description:	4-42-2
Date Received:	6/14/90
Date Analyzed:	6/15/90
Analyst:	DWH
Percent Solids:	75.8

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005
Chlorobenzene	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8140
Client Description:	4-47-2
Date Received:	6/14/90
Date Analyzed:	6/15/90
Analyst:	DWH
Percent Solids:	82.8

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005
Chlorobenzene	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8163
Client Description:	4-54-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	92.3

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8164
Client Description:	4-55-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	91.8

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8165
Client Description:	4-56-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	84.0

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

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MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8166
Client Description:	4-57-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	83.0

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8167
Client Description:	4-58-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	90.8

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8168 51
Client Description:	4-~~59~~-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	86.0

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8169
Client Description:	4-60-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	87.4

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8170
Client Description:	4-61-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	81.2

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH
ENVIRONMENTAL CONSULTANTS, INC
P.O. Box 76, Melmore, Ohio 44845, 419-397-2659 or 397-2222
P.O. Box 436, 181 South Main Street, Marion, Ohio 43302, 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC[illegible]-15-1990
DATE REP[illegible]-26-1990 P.O. # 831610

LAB NO. 10-9119-90
CLIENT NO. I0030

SAMPLE L[illegible] 4-54-2 (8775-90)
SAMPLED [illegible] TOMPKINS

DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICA[illegible] MANAGEMENT
3956 ST [illegible]
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	[illegible]C, TOTAL, AS	<3	MG/KG	06-27-1990
01007	[illegible], TOTAL, BA	81	MG/KG	06-27-1990
01027	[illegible]M, TOTAL, CD	<0.5	MG/KG	06-27-1990
01034	[illegible]UM, TOTAL, CR	5	MG/KG	06-27-1990
01051	[illegible] TOTAL, PB	11	MG/KG	06-27-1990
71900	[illegible]Y, TOTAL, HG	0.02	MG/KG	06-22-1990
01147	[illegible]UM, TOTAL, SE	<3	MG/KG	06-27-1990
01077	[illegible], TOTAL, AG	<0.5	MG/KG	06-27-1990

LABORAT[illegible]FICATION # 4053

SIGNED Jeffrey A. Smith

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P.O. Box 436, 181 South Main Street, Marion, Ohio 43302, 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9120-90
CLIENT NO. I0030

SAMPLE LOCATION 4-55-2 (8776-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	4	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	19	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.4	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	5	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	8	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.02	MG/KG	06-22-1990
1147	SELENIUM, TOTAL, SE	<4	MG/KG	06-27-1990
1077	SILVER, TOTAL, AG	<0.4	MG/KG	06-27-1990

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Inscott

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9121-90
CLIENT NO. I0030

SAMPLE LOCATION 4-56-2 (8777-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	12	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	100	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	17	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	12	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.06	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<6	MG/KG	06-27-1990
1077	SILVER, TOTAL, AG	<0.6	MG/KG	06-27-1990

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9122-90
CLIENT NO. I0030

SAMPLE LOCATION 4-57-2 (8778-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	21	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	50	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.4	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	12	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	8	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.06	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<4	MG/KG	06-27-1990
077	SILVER, TOTAL, AG	<0.4	MG/KG	06-27-1990

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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P.O. Box 436, 181 South Main Street, Marion, Ohio 43302, 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9123-90
CLIENT NO. I0030

SAMPLE LOCATION 4-58-2 (8779-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	23	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	75	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	23	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	12	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.04	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<6	MG/KG	06-27-1990
077	SILVER, TOTAL, AG	<0.6	MG/KG	06-27-1990

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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P.O. Box 436, 181 South Main Street, Marion, Ohio 43302, 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9124-90
CLIENT NO. I0030

SAMPLE LOCATION 4-5-2 (8780-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	17	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	27	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.5	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	8	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	<5	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.01	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<5	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	<0.5	MG/KG	06-27-1990

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9125-90
CLIENT NO. I0030

SAMPLE LOCATION 4-60-2 (8781-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	3	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	18	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.5	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	10	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	9	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.12	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<5	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	<0.5	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9126-90
CLIENT NO. I0030

SAMPLE LOCATION 4-61-2 (8782-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	21	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	99	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.7	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	27	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	14	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.06	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<7	MG/KG	06-27-1990
077	SILVER, TOTAL, AG	<0.7	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-26-1990
P.O. # 831610
LAB NO. 8775-90
CLIENT NO. 10030

SAMPLE LOCATION 4-54-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	90.4	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-02-1990
P.O. # 831610
LAB NO. 8776-90
CLIENT NO. I0030

SAMPLE LOCATION 4-55-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.21	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	6.94	MG/KG	06-29-1990
00500	RESIDUE, TOTAL (TS)	86.5	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8777-90
CLIENT NO. 10030

SAMPLE LOCATION 4-56-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.40	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	78.0	%	06-19-1990

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DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8778-90
CLIENT NO. I0030
SAMPLE LOCATION 4-57-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	82.0	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8779-90
CLIENT NO. I0030

SAMPLE LOCATION 4-58-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	0.28	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	84.2	%	06-19-1990

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DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8780-90
CLIENT NO. I0030

SAMPLE LOCATION 4-57-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	86.7	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8781-90
CLIENT NO. 10030

SAMPLE LOCATION 4-60-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.22	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	83.9	%	06-19-1990

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DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8782-90
CLIENT NO. I0030

SAMPLE LOCATION 4-61-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.50	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	76.8	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-21-1990
DATE REP'D. 07-03-1990
P.O. # 831610
LAB NO. 9193-90
CLIENT NO. 19830

SAMPLE LOCATION 4-37-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 14:00

CHEMICAL WASTE MGMT.
4956 ST.RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	29	MG/KG	06-28-1990
01007	BARIUM, TOTAL, BA	110	MG/KG	06-28-1990
01027	CADMIUM, TOTAL, CD	<0.4	MG/KG	06-28-1990
01034	CHROMIUM, TOTAL, CR	18	MG/KG	06-28-1990
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	07-01-1990
01051	LEAD, TOTAL, PB	8	MG/KG	06-28-1990
71900	MERCURY, TOTAL, HG	1.1	MG/KG	06-25-1990
2730	PHENOLS, 4-AAP	<0.10	MG/KG	07-02-1990
00500	RESIDUE, TOTAL (TS)	84.3	%	06-24-1990
01147	SELENIUM, TOTAL, SE	<4	MG/KG	06-28-1990
01077	SILVER, TOTAL, AG	0.4	MG/KG	06-28-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-21-1990
DATE REP'D. 07-03-1990
P.O. # 521610
LAB NO. 9194-90
CLIENT NO. 10830

SAMPLE LOCATION 4-39-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 10:20

CHEMICAL WASTE MGMT.
4956 ST.RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	36	MG/KG	06-28-1990
01007	BARIUM, TOTAL, BA	150	MG/KG	06-28-1990
01027	CADMIUM, TOTAL, CD	<0.6	MG/KG	06-28-1990
01034	CHROMIUM, TOTAL, CR	24	MG/KG	06-28-1990
00720	CYANIDE, TOTAL, CN	0.61	MG/KG	07-01-1990
01051	LEAD, TOTAL, PB	19	MG/KG	06-28-1990
71900	MERCURY, TOTAL, HG	<0.07	MG/KG	06-25-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	07-02-1990
00500	RESIDUE, TOTAL (TS)	76.2	%	06-24-1990
01147	SELENIUM, TOTAL, SE	<6	MG/KG	06-28-1990
01077	SILVER, TOTAL, AG	0.6	MG/KG	06-28-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-21-1990
DATE REP'D. 07-03-1990
P.O. # 031610
LAB NO. 9195-90
CLIENT NO. I0030

SAMPLE LOCATION 4-42-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 10:00

--
CHEMICAL WASTE MGMT.
4956 ST.RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	42	MG/KG	06-28-1990
01007	BARIUM, TOTAL, BA	160	MG/KG	06-28-1990
01027	CADMIUM, TOTAL, CD	0.5	MG/KG	06-28-1990
01034	CHROMIUM, TOTAL, CR	20	MG/KG	06-28-1990
00720	CYANIDE, TOTAL, CN	0.53	MG/KG	07-01-1990
01051	LEAD, TOTAL, PB	10	MG/KG	06-28-1990
71900	MERCURY, TOTAL, HG	0.1	MG/KG	06-25-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	07-02-1990
00500	RESIDUE, TOTAL (TS)	71.5	%	06-24-1990
01147	SELENIUM, TOTAL, SE	<5	MG/KG	06-28-1990
01077	SILVER, TOTAL, AG	0.5	MG/KG	06-28-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-21-1990
DATE REP'D. 07-03-1990
P.O. # 631610
LAB NO. 9196-90
CLIENT NO. 10030
SAMPLE LOCATION 4-47-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 10:00

CHEMICAL WASTE MGMT.
4956 ST.RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	14	MG/KG	06-28-1990
01007	BARIUM, TOTAL, BA	100	MG/KG	06-28-1990
01027	CADMIUM, TOTAL, CD	<0.6	MG/KG	06-28-1990
01034	CHROMIUM, TOTAL, CR	18	MG/KG	06-28-1990
00720	CYANIDE, TOTAL, CN	0.31	MG/KG	07-01-1990
01051	LEAD, TOTAL, PB	6	MG/KG	06-28-1990
1900	MERCURY, TOTAL, HG	<0.05	MG/L	06-25-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	07-02-1990
00500	RESIDUE, TOTAL (TS)	79.8	%	06-24-1990
01147	SELENIUM, TOTAL, SE	<3	MG/KG	06-28-1990
01077	SILVER, TOTAL, AG	0.6	MG/KG	06-28-1990

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DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9127-90
CLIENT NO. I0030
SAMPLE LOCATION 5-68-2 (8783-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYS
01002	ARSENIC, TOTAL, AS	14	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	71	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.5	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	22	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	20	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.06	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<5	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	<0.5	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9128-90
CLIENT NO. 10030

SAMPLE LOCATION 5-70-2 (8784-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY, OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	26	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	130	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	26	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	12	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.04	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<6	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	0.6	MG/KG	06-27-1990

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DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9129-90
CLIENT NO. I0030

SAMPLE LOCATION 5-73-2 (8785-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	15	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	52	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	13	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	6	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.14	MG/KG	06-22-1990
1147	SELENIUM, TOTAL, SE	<6	MG/KG	06-27-1990
1077	SILVER, TOTAL, AG	<0.6	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-20-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9130-90
CLIENT NO. I0030
SAMPLE LOCATION 5-79-2 (8786-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	20	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	93	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.5	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	23	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	11	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.02	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<5	MG/KG	06-27-1990
077	SILVER, TOTAL, AG	<0.5	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9131-90
CLIENT NO. I0030

SAMPLE LOCATION 5-82-2 (8787-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	5	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	14	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.4	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	3	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	4	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.03	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<2	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	<0.4	MG/KG	06-27-1990

ABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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P.O. Box 76, Melmore, Ohio 44845. 419-397-2659 or 397-2222
P.O Box 436, 181 South Main Street, Marion, Ohio 43302, 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9132-90
CLIENT NO. I0030

SAMPLE LOCATION 5-83-2 (8788-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	17	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	62	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	0.7	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	16	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	7	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.07	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<3	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	<0.7	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9133-90
CLIENT NO. I0030

SAMPLE LOCATION 5-85-2 (8789-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	8	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	33	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	0.5	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	9	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	5	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.02	MG/KG	06-22-1990
1147	SELENIUM, TOTAL, SE	<3	MG/KG	06-27-1990
077	SILVER, TOTAL, AG	0.5	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-20-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9134-90
CLIENT NO I0030

SAMPLE LOCATION 5-87-2 (8790-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	10	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	32	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	9	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	6	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.50	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<3	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	<0.6	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610

LAB NO 8783-90
CLIENT NO 10030

SAMPLE LOCATION 5-68-2
SAMPLED BY JOHN TOMPKINS

DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	0.11	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	80.4	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 031610
LAB NO. 8784-90
CLIENT NO. I0030

SAMPLE LOCATION 5-70-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.36	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	1.47	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	78.6	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8785-90
CLIENT NO. I0030

SAMPLE LOCATION 5-73-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	0.11	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	81.4	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8786-90
CLIENT NO. I0030

SAMPLE LOCATION 5-79-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	0.29	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	80.0	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D: 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 031610

LAB NO. 8787-90
CLIENT NO. T0030

SAMPLE LOCATION 5-82-2
SAMPLED BY JOHN TOMPKINS

DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	0.57	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	83.4	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8708-90
CLIENT NO. I0030

SAMPLE LOCATION 5-83-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	77.2	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 6789-90
CLIENT NO. 10030

SAMPLE LOCATION 5-85-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	86.3	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8790-90
CLIENT NO. I0030

SAMPLE LOCATION 5-87-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	89.0	%	06-19-1990

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MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8171
Client Description:	5-68-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	83.4

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8172
Client Description:	5-70-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	86.6

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8173
Client Description:	5-73-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	81.8

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

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P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8174
Client Description:	5-79-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	85.8

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

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P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8175
Client Description:	5-82-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	85.7

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

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Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8176
Client Description:	5-83-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	85.5

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

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MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8177
Client Description:	5-85-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	87.1

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

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Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8178
Client Description:	5-87-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	87.6

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH
P.O. Box 7[illegible] Malmore, Ohio 44641 419-391-2659 or 391-0222
P.O. Box 437 181 South Main Street Marion, Ohio 43302 614-382-59[illegible]

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-04-1990
DATE REP'D. 05-14-1990
P.O. # 831614
LAB NO. 6476-90
CLIENT NO. TRMSC
SAMPLE LOCATION 2-90
SAMPLED BY DAUREN SMITH
DATE SAMPLED 05-03-1990
TIME SAMPLED ?

CHEMICAL WASTE MANAGEMENT
3905 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	2.61	MG/KG	05-10-1990
32736	PHENOLS, 4-AAP	0.247	MG/KG	05-15-1990
00500	RESIDUE, TOTAL (TS)	84.3	%	05-09-1990
00001	EP TOXICITY TEST:	--	--	05-06-1990
01002	ARSENIC, TOTAL, AS	<0.02	MG/L	05-15-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-15-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-15-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-15-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-15-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-08-1990
01147	SELENIUM, TOTAL, SE	<0.02	MG/L	05-15-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-15-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-04-1990
DATE REP'D. 05-16-1990
P.O. # 861610
LAB NO. 2477-90
CLIENT NO. 10538
SAMPLE LOCATION 7-95
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-03-1990
TIME SAMPLED

CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.74	MG/KG	05-11-1990
32730	PHENOLS, 4-AAP	<0.045	MG/KG	05-15-1990
00500	RESIDUE, TOTAL (TS)	79.1	%	05-09-1990
00001	EP TOXICITY TEST:	--	--	05-06-1990
01002	ARSENIC, TOTAL, AS	<0.02	MG/L	05-15-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-15-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-15-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-15-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-15-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-08-1990
01147	SELENIUM, TOTAL, SE	<0.02	MG/L	05-15-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-15-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-04-1990
DATE REP'D. 05-16-1990
P.O. # 031610
LAB NO. 6478-90
CLIENT NO. 70030

SAMPLE LOCATION 7-97
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-03-1990
TIME SAMPLED

CHEMICAL WASTE MANAGEMENT
4956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	4.39	MG/KG	05-10-1990
32730	PHENOLS, 4-AAP	0.140	MG/KG	05-15-1990
00500	RESIDUE, TOTAL (TS)	80.7	%	05-09-1990
00001	EP TOXICITY TEST:	---	--	05-06-1990
01002	ARSENIC, TOTAL, AS	0.02	MG/L	05-15-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-15-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-15-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-15-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-15-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-08-1990
01147	SELENIUM, TOTAL, SE	<0.02	MG/L	05-15-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-15-1990

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P.O. Box 430, 187 South Main Street Marion Ohio 43302, 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-04-1990
DATE REP'D. 05-16-1990
P.O. # 831610
LAB NO. 6479-90
CLIENT NO. 10030

SAMPLE LOCATION 7-103
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-03-1990
TIME SAMPLED ?

CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.25	MG/KG	05-10-1990
32730	PHENOLS, 4-AAP	<0.096	MG/KG	05-15-1990
00500	RESIDUE, TOTAL (TS)	80.1	%	05-09-1990
00001	EP TOXICITY TEST:	--	--	05-06-1990
01002	ARSENIC, TOTAL, AS	0.02	MG/L	05-15-1990
01007	BARIUM, TOTAL, BA	0.5	MG/L	05-15-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-15-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-15-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-15-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-08-1990
01147	SELENIUM, TOTAL, SE	<0.20	MG/L	05-15-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-15-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-04-1990
DATE REP'D. 05-16-1990
P.O. # 831610
LAB NO. 4480-90
CLIENT NO. I0030
SAMPLE LOCATION 7-105
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-03-1990
TIME SAMPLED

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.084	MG/KG	05-10-1990
32730	PHENOLS, 4-AAP	0.040	MG/KG	05-15-1990
00500	RESIDUE, TOTAL (TS)	86.7	%	05-09-1990
00001	EP TOXICITY TEST:	--	--	05-07-1990
01002	ARSENIC, TOTAL, AS	<0.02	MG/L	05-15-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-15-1990
027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-15-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-15-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-15-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-10-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-15-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-15-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-04-1990
DATE REP'D. 05-16-1990
P.O. # 831610
LAB NO. 6481-90
CLIENT NO. 10030

SAMPLE LOCATION 7-167
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-03-1990
TIME SAMPLED

CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.10	MG/KG	05-10-1990
32730	PHENOLS, 4-AAP	0.105	MG/KG	05-15-1990
00500	RESIDUE, TOTAL (TS)	85.2	%	05-09-1990
00001	EP TOXICITY TEST:	--	--	05-07-1990
01002	ARSENIC, TOTAL, AS	<0.02	MG/L	05-15-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-15-1990
927	CADMIUM, TOTAL, CD	<0.05	MG/L	05-15-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-15-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-15-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-10-1990
01147	SELENIUM, TOTAL, SE	<0.05	MG/L	05-15-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-15-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-04-1990
DATE REP'D. 05-14-1990
P.O. # 831610
LAB NO. 4482-90
CLIENT NO. T0030
SAMPLE LOCATION 7-109
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-03-1990
TIME SAMPLED ?

CHEMICAL WASTE MANAGEMENT
5956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.57	MG/KG	05-10-1990
32730	PHENOLS, 4-AAP	<0.092	MG/KG	05-15-1990
00500	RESIDUE, TOTAL (TS)	91.3	%	05-09-1990
00001	EP TOXICITY TEST:	--	--	05-07-1990
01002	ARSENIC, TOTAL, AS	<0.02	MG/L	05-15-1990
01007	BARIUM, TOTAL, BA	1.1	MG/L	05-15-1990
01027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-15-1990
01034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-15-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-15-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-10-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-15-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-15-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-04-1990
DATE REP'D. 05-16-1990
P.O. # 031610
LAB NO. 6483-90
CLIENT NO. 10030
SAMPLE LOCATION 7-112
SAMPLED BY DARREN SMITH
DATE SAMPLED 05-03-1990
TIME SAMPLED ?

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.69	MG/KG	05-10-1990
32730	PHENOLS, 4-AAP	0.100	MG/KG	05-15-1990
00500	RESIDUE, TOTAL (TS)	79.8	%	05-09-1990
00001	EP TOXICITY TEST:	--	--	05-07-1990
01002	ARSENIC, TOTAL, AS	<0.02	MG/L	05-15-1990
01007	BARIUM, TOTAL, BA	<0.5	MG/L	05-15-1990
1027	CADMIUM, TOTAL, CD	<0.05	MG/L	05-15-1990
1034	CHROMIUM, TOTAL, CR	<0.20	MG/L	05-15-1990
01051	LEAD, TOTAL, PB	<0.5	MG/L	05-15-1990
71900	MERCURY, TOTAL, HG	<2.0	UG/L	05-10-1990
01147	SELENIUM, TOTAL, SE	<0.03	MG/L	05-15-1990
01077	SILVER, TOTAL, AG	<0.05	MG/L	05-15-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9135-90
CLIENT NO. I0030

SAMPLE LOCATION 7-89-2 (8791-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	53	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	130	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	24	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	6	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.09	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<3	MG/KG	06-27-1990
1077	SILVER, TOTAL, AG	0.6	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9136-90
CLIENT NO. I0030

SAMPLE LOCATION 7-95-2 (8792-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	35	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	110	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.5	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	30	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	16	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.08	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<5	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	0.5	MG/KG	06-27-1990

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DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9137-90
CLIENT NO. I0030

SAMPLE LOCATION 7-99-2 (8793-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	38	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	120	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	20	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	12	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.21	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<6	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	0.6	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9138-90
CLIENT NO. I0030

SAMPLE LOCATION 7-102 (8794-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	37	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	140	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	28	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	12	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.09	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<6	MG/KG	06-27-1990
1077	SILVER, TOTAL, AG	<0.6	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9139-90
CLIENT NO. I0030
SAMPLE LOCATION 7-106-2 (8795-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	8	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	47	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	11	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	6	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.10	MG/KG	06-22-1990
1147	SELENIUM, TOTAL, SE	<6	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	<0.6	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9140-90
CLIENT NO. I0030

SAMPLE LOCATION 7-107-2 (8796-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	26	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	97	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	0.6	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	19	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	6	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.05	MG/KG	06-22-1990
01147	SELENIUM, TOTAL, SE	<6	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	0.6	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-06-1990
P.O. # 831610
LAB NO. 10-9141-90
CLIENT NO. I0030

SAMPLE LOCATION 7-109-2 (8797-90)
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 ST RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	24	MG/KG	06-27-1990
01007	BARIUM, TOTAL, BA	77	MG/KG	06-27-1990
01027	CADMIUM, TOTAL, CD	<0.5	MG/KG	06-27-1990
01034	CHROMIUM, TOTAL, CR	29	MG/KG	06-27-1990
01051	LEAD, TOTAL, PB	23	MG/KG	06-27-1990
71900	MERCURY, TOTAL, HG	0.92	MG/KG	06-22-1990
71147	SELENIUM, TOTAL, SE	<2	MG/KG	06-27-1990
01077	SILVER, TOTAL, AG	0.5	MG/KG	06-27-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-21-1990
DATE REP'D. 07-03-1990 P.O. # 031610

LAB NO. 9197-90
CLIENT NO. I0030

SAMPLE LOCATION 7-112-2
SAMPLED BY JOHN TOMPKINS

DATE SAMPLED 06-13-1990
TIME SAMPLED 10:00

--
CHEMICAL WASTE MGMT.
4956 ST.RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	4	MG/KG	06-28-1990
01007	BARIUM, TOTAL, BA	91	MG/KG	06-28-1990
01027	CADMIUM, TOTAL, CD	<0.4	MG/KG	06-28-1990
01034	CHROMIUM, TOTAL, CR	11	MG/KG	06-28-1990
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	07-01-1990
01051	LEAD, TOTAL, PB	78	MG/KG	06-28-1990
71900	MERCURY, TOTAL, HG	0.2	MG/KG	06-25-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	07-02-1990
00500	RESIDUE, TOTAL (TS)	93.5	%	06-24-1990
01147	SELENIUM, TOTAL, SE	<4	MG/KG	06-28-1990
01077	SILVER, TOTAL, AG	0.9	MG/KG	06-28-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8791-90
CLIENT NO. 10030

SAMPLE LOCATION 7-89-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.47	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	82.1	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 5792-90
CLIENT NO. 10030

SAMPLE LOCATION 7-95-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.25	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	77.3	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 031610
LAB NO. 8793-90
CLIENT NO. 10030

SAMPLE LOCATION 7-99-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.24	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	0.18	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	82.8	%	06-19-1990

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 06-28-1990
P.O. # 831610
LAB NO. 8794-90
CLIENT NO. 10030

SAMPLE LOCATION 7-182-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-27-1990
00500	RESIDUE, TOTAL (TS)	83.2	%	06-19-1990

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ENVIRONMENTAL CONSULTANTS, INC.
P.O. Box 76, Melmore, Ohio 44845, 419-397-2659 or 397-2222
P.O. Box 436, 181 South Main Street, Marion, Ohio 43302, 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-02-1990
P.O. # 531610
LAB NO. 0795-90
CLIENT NO. 16030

SAMPLE LOCATION 7-106-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-29-1990
00500	RESIDUE, TOTAL (TS)	79.1	%	06-19-1990

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-02-1990
P.O. # 031610

LAB NO. 2796-90
CLIENT NO. 10030

SAMPLE LOCATION 7-107-2
SAMPLED BY JOHN TOMPKINS

DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-29-1990
00500	RESIDUE, TOTAL (TS)	81.0	%	06-19-1990

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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P.O. Box 76, Melmore, Ohio 44845, 419-397-2659 or 397-2222
P.O. Box 436, 181 South Main Street, Marion, Ohio 43302, 614-382-5991

LABORATORY ANALYSIS REPORT

DATE REC'D. 06-15-1990
DATE REP'D. 07-02-1990
P.O. # 861610
LAB NO. 8797-90
CLIENT NO. 10030
SAMPLE LOCATION 7-109-2
SAMPLED BY JOHN TOMPKINS
DATE SAMPLED 06-13-1990
TIME SAMPLED 09:30

--
CHEMICAL WASTE MANAGEMENT
3956 STATE RT 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.20	MG/KG	06-20-1990
32730	PHENOLS, 4-AAP	<0.10	MG/KG	06-29-1990
00500	RESIDUE, TOTAL (TS)	90.0	%	06-19-1990

LABORATORY CERTIFICATION # 4053

SIGNED Tiffany A. Smith

COPY DISTRIBUTION: WHITE - CLIENT YELLOW - FILE

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 7-90
PERCENT SOLIDS: 86.0

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/10/90
LAB NOTEBOOK NO.: A9386
ATEC NO.: 5907

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 7-90

Method No.: SW-846; 8080
Date Received: 05/03/90
Date Extracted: 05/07/90
Date Analyzed: 05/11/90
Atec Sample No.: 5907

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 7-95
PERCENT SOLIDS: 81.4

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/10/90
LAB NOTEBOOK NO.: A9376
ATEC NO.: 5908

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

1 results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB'S
Analyst: CMR
Client Sample No.: 7-95

Method No.: SW-846; 8080
Date Received: 05/03/90
Date Extracted: 05/07/90
Date Analyzed: 05/11/90
Atec Sample No.: 5908

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 7-97
PERCENT SOLIDS: 81.8

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/10/90
LAB NOTEBOOK NO.: A9360
ATEC NO.: 5909

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

1 results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 7-97

Method No.: SW-846; 8080
Date Received: 05/03/90
Date Extracted: 05/07/90
Date Analyzed: 05/11/90
Atec Sample No.: 5909

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 7-103
PERCENT SOLIDS: 80.8

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/10/90
LAB NOTEBOOK NO.: A9377
ATEC NO.: 5910

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

ll results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 7-103

Method No.: SW-846; 8080
Date Received: 05/03/90
Date Extracted: 05/07/90
Date Analyzed: 05/11/90
Atec Sample No.: 5910

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

B-195

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 7-105
PERCENT SOLIDS: 87.5

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/10/90
LAB NOTEBOOK NO.: A9378
ATEC NO.: 5911

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Mgmt
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMB
Client Sample No.: 7-105

Method No.: SW846: 8080
Date Received: 05/03/90
Date Extracted: 05/07/90
Date Analysed: 05/11/90
Atec Sample No.: 5911

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 7-107
PERCENT SOLIDS: 92.0

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/10/90
LAB NOTEBOOK NO.: A9362
ATEC NO.: 5912

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

-1: results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 7-107

Method No.: SW-846; 8080
Date Received: 05/03/90
Date Extracted: 05/07/90
Date Analyzed: 05/11/90
Atec Sample No.: 5912

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 7-109
PERCENT SOLIDS: 90.3

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/10/90
LAB NOTEBOOK NO.: A9363
ATEC NO.: 5913

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.005
Methylene Chloride	< 0.005
Trichloroethene	< 0.005
1,1,1-Trichloroethane	< 0.005
Carbon Tetrachloride	< 0.005
Trichlorofluoromethane	< 0.020
Dichlorodifluoromethane	< 0.020
F002	
1,1,2-Trichloroethane	< 0.005
Chlorobenzene	< 0.005
1,1,2-Trichlorotrifluoroethane	< 0.020
1,2-Dichlorobenzene	< 0.005
F003	
Xylenes (total)	< 0.005
Acetone	< 0.100
Ethyl Acetate	< 0.100
Ethyl Benzene	< 0.005
Ethyl Ether	< 0.100
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 0.100
Cyclohexanone	< 0.100
Methanol (GC/FID)	< 1.00
F005	
Toluene	< 0.005
Methyl Ethyl Ketone	< 0.100
Carbon Disulfide	< 0.005
Isobutanol	< 0.100
Pyridine	< 0.100
2-Ethoxyethanol	< 0.100
Benzene	< 0.005
2-Nitropropane (GC/FID)	< 1.00

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 7-109

Method No.: SW-846; 8080
Date Received: 05/03/90
Date Extracted: 05/07/90
Date Analyzed: 05/11/90
Atec Sample No.: 5913

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME: Chemical Waste Management
SAMPLE TYPE: Soil
ANALYSIS PERFORMED: PURGEABLES BY GC/MS
ANALYST: DWH
CUSTOMER SAMPLE NO.: 7-112
PERCENT SOLIDS: 83.7

METHOD: 8240; 8015
DATE RECEIVED: 5/3/90
DATE ANALYZED: 5/10/90
LAB NOTEBOOK NO.: A9415
ATEC NO.: 5914

R E S U L T S

COMPOUND	CONCENTRATION
F001	
Tetrachloroethene	< 0.050
Methylene Chloride	< 0.050
Trichloroethene	< 0.050
1,1,1-Trichloroethane	< 0.050
Carbon Tetrachloride	< 0.050
Trichlorofluoromethane	3.59
Dichlorodifluoromethane	< 0.200
F002	
1,1,2-Trichloroethane	< 0.050
Chlorobenzene	< 0.050
1,1,2-Trichlorotrifluoroethane	< 0.200
1,2-Dichlorobenzene	< 0.050
F003	
Xylenes (total)	< 0.050
Acetone	< 1.00
Ethyl Acetate	< 1.00
Ethyl Benzene	< 0.050
Ethyl Ether	< 1.00
Methyl Isobutyl Ketone (MIBK)	< 0.050
n-Butyl Alcohol	< 1.00
Cyclohexanone	< 1.00
Methanol (GC/FID)	< 10.0
F005	
Toluene	< 0.050
Methyl Ethyl Ketone	< 1.00
Carbon Disulfide	< 0.050
Isobutanol	< 1.00
Pyridine	< 1.00
2-Ethoxyethanol	< 1.00
Benzene	< 0.050
2-Nitropropane (GC/FID)	< 10.0

All results reported as mg/Kg (ppm) dry weight

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: PCB's
Analyst: CMR
Client Sample No.: 7-112

Method No.: SW-846; 8080
Date Received: 05/03/90
Date Extracted: 05/07/90
Date Analyzed: 05/11/90
Atec Sample No.: 5914

PCB-1016	< 0.5
PCB-1221	< 0.5
PCB-1232	< 0.5
PCB-1242	< 0.5
PCB-1248	< 0.5
PCB-1254	< 0.5
PCB-1260	< 0.5

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8179
Client Description:	7-89-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	85.8

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8180
Client Description:	7-95-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	83.9

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8181
Client Description:	7-99-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	83.8

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8182
Client Description:	7-102-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	87.5

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8183
Client Description:	7-106-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	91.2

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8184
Client Description:	7-107-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	87.7

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8185
Client Description:	7-109-2
Date Received:	6/14/90
Date Analyzed:	6/21/90
Analyst:	DWH
Percent Solids:	87.8

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005

Authorized Signature

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.

MELMORE LABORATORY
P.O. BOX 76
MELMORE, OHIO 44845

Telephone: (419) 397-2659

Client:	Chemical Waste Management
Atec Sample No.:	8141
Client Description:	7-112-2
Date Received:	6/14/90
Date Analyzed:	6/15/90
Analyst:	DWH
Percent Solids:	93.0

SELECTED VOLATILES ANALYSIS - Method 8240

Compound	Concentration (mg/kg) dry weight
Carbon Tetrachloride	< 0.005
Chloroform	< 0.005
Methylene Chloride	< 0.005
Trichlorofluoromethane	0.199

Authorized Signature

ATTACHMENT C

1991 SOIL ANALYSIS RESULTS

BOWSER MORNER

AQUA TECH
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P.O. Box 76, Melmore, Ohio 44845, 419-397-2659 or 397-2272
P.O. Box 436, 181 South Main Street, Marion, Ohio 43302, 614-382-5991
936 North Homer Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6343-91
CLIENT NO. 10039

SAMPLE LOCATION 3-1-R (20-10225-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:00

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	6-M	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	88	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.155	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	14	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.07	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	79.0	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	---	---	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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936 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-20-1991
DATE REP'D. 05-22-1991
P.O. # 641528

LAB NO. 10-8796-91
CLIENT NO. 10039

SAMPLE LOCATION 3-1-R (20-13871-91)
SAMPLED BY MORRIS WATERS

DATE SAMPLED 05-16-1991
TIME SAMPLED 14:40

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 417
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	19	MG/KG	05-22-1991
00500	RESIDUE, TOTAL (TS)	71.8	%	05-21-1991
00103	SPLIT SAMPLE FROM MFLMORE	--	--	05-21-1991

LABORATORY CERTIFICATION # 4053

SIGNED Peter J. Grull

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936 North Horner Blvd., Sanford, North Carolina 27332

LABORATORY ANALYSIS REPORT

DATE REC'D. 06-21-1991
DATE REP'D. 06-28-1991
P.O. # 641536
LAB NO. 10-11116-91
CLIENT NO. 10037

SAMPLE LOCATION 3R-1-2
SAMPLED BY MORRIS WATER
DATE SAMPLED 06-19-1991
TIME SAMPLED 11:40

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	14	MG/KG	06-27-1991
00500	RESIDUE, TOTAL (TS)	78.9	%	06-25-1991

LABORATORY CERTIFICATION # 4053

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LABORATORY ANALYSIS REPORT

DATE REC'D. 07-10-1991
DATE REP'D. 07-12-1991 P.O. # 641547

LAB NO. 10-11958-91
CLIENT NO. 10039

SAMPLE LOCATION 3R-1-3
SAMPLED BY PLANT PERSONNEL

DATE SAMPLED 07-09-1991
TIME SAMPLED 09:10

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	12	MG/KG	07-12-1991
00500	RESIDUE, TOTAL (TS)	73.5	%	07-11-1991

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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936 North Homer Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-24-1991 P.O. # 67168-1

LAB NO. 10-6344-91
CLIENT NO. I0039

SAMPLE LOCATION 3-2-R (20-10226-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:04

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	<2-R	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	78	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.128	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	6	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.07	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	80.8	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053 C-5 SIGNED Jeffrey A. Smith

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936 North Homer Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-24-1991 P.O. # 67168-1

LAB NO. 10-6345-91
CLIENT NO. I0039

SAMPLE LOCATION 3-3-R (20-10227-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:06

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	2-M	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	92	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.140	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	9	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.07	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	77.2	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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936 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6346-91
CLIENT NO. 10039

SAMPLE LOCATION 3-4-R (20-10228-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 13:52

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	9-M	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	97	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.155	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	10	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.06	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	80.9	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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938 North Homer Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67162-1

LAB NO. 10-6347-91
CLIENT NO. 10039

SAMPLE LOCATION 3-5-R (20-10229-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:00

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3936 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	3-M	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	58	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	2.64	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	6	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.04	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	77.0	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

SIGNED Jeffrey A. Smith

LABORATORY CERTIFICATION # 4053

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936 North Homer Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-20-1991
DATE REP'D. 05-24-1991
P.O. # 641528
LAB NO. 10-8797-91
CLIENT NO. I0039

SAMPLE LOCATION 3-5-R (20-13872-91)
SAMPLED BY MORRIS WATERS
DATE SAMPLED 05-16-1991
TIME SAMPLED 14:43

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3954 ST. RT. 412
VICKERY / OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.135	MG/KG	05-23-1991
00500	RESIDUE, TOTAL (TS)	77.5	%	05-21-1991
00103	SPLIT SAMPLE FROM MELMORE	---	---	05-21-1991

LABORATORY CERTIFICATION # 4053

SIGNED Peter J. Goulet

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6348-91
CLIENT NO. I0039

SAMPLE LOCATION 3-6-R (20-10230-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 13:56

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	4-M	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	104	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.162	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	10	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.06	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	79.0	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Tiffany A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6349-91
CLIENT NO. I0039

SAMPLE LOCATION 3-7-R (20-10231-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:02

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	3-M	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	52	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	(0.195	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	33	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.2	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	75.8	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

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936 North Homer Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-20-1991
DATE REP'D. 05-22-1991
P.O. # 641526
LAB NO. 10-8798-91
CLIENT NO. 10039

SAMPLE LOCATION 3-7-R (20-13873-91)
SAMPLED BY MORRIS WATERS
DATE SAMPLED 05-16-1991
TIME SAMPLED 14:45

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3954 ST. RT. 412
VICKERY / OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	29	MG/KG	05-22-1991
71900	MERCURY, TOTAL, HG	<0.1	MG/KG	05-21-1991
00500	RESIDUE, TOTAL (TS)	77.0	%	05-21-1991
00103	SPLIT SAMPLE FROM MELMORE	---	---	05-21-1991

LABORATORY CERTIFICATION # 4053

SIGNED Peter J. Goff

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936 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 06-21-1991
DATE REP'D. 06-28-1991
P.O. # 641536
LAB NO. 10-1111?-91
CLIENT NO. 10039

SAMPLE LOCATION 3R-7-2
SAMPLED BY MORRIS WATER
DATE SAMPLED 06-19-1991
TIME SAMPLED 11:40

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY, OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	3	MG/KG	06-27-1991
00500	RESIDUE, TOTAL (TS)	86.3	%	06-25-1991

LABORATORY CERTIFICATION # 4053

C-13

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6350-91
CLIENT NO. I0039

SAMPLE LOCATION 3-8-R (20-10232-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 13:50

FRED LEAK
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	6	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	78	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.170	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	27	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.07	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	82.2	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Trout

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936 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-20-1991
DATE REP'D. 05-22-1991
P.O. # 641528
LAB NO. 10-8799-91
CLIENT NO. I0039

SAMPLE LOCATION 3-8-R (20-13874-91)
SAMPLED BY MORRIS WATERS
DATE SAMPLED 05-16-1991
TIME SAMPLED 14:00

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY / OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	45	MG/KG	05-22-1991
00500	RESIDUE, TOTAL (TS)	83.9	%	05-21-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	05-21-1991

LABORATORY CERTIFICATION # 4053

SIGNED Peter J. Goull

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835 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 06-21-1991
DATE REP'D. 06-28-1991
P.O. # 641536
LAB NO 1J-1115[illegible]
CLIENT NO. 19939

SAMPLE LOCATION 3R-8-2
SAMPLED BY MORRIS WATER
DATE SAMPLED 06-19-1991
TIME SAMPLED 11:50

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	11	MG/KG	06-27-1991
00500	RESIDUE, TOTAL (TS)	84.8	%	06-25-1991

LABORATORY CERTIFICATION # 4053

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6351-91
CLIENT NO. I0039

SAMPLE LOCATION 3-9-R (20-10233-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 13:51

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	5-M	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	55	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	1.53	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	18	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.5	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	81.3	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-20-1991
DATE REP'D. 05-24-1991
P.O. # 641528
LAB NO. 10-8800-91
CLIENT NO. I0039

SAMPLE LOCATION 3-9-R (20-15875-91)
SAMPLED BY MORRIS WATERS
DATE SAMPLED 05-16-1991
TIME SAMPLED 14:53

FRED LEAR
CHEMIGAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	<0.300	MG/KG	05-23-1991
01051	LEAD, TOTAL, PB	8	MG/KG	05-22-1991
71900	MERCURY, TOTAL, HG	<0.04	MG/KG	05-21-1991
00500	RESIDUE, TOTAL (TS)	92.8	%	05-21-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	05-21-1991

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SIGNED Peter J. Goell

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6352-91
CLIENT NO. 10039

SAMPLE LOCATION 3-10-R (20-10234-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:11

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3936 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	5-M	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	110	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.161	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	57	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.07	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	76.2	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-20-1991
DATE REP'D. 05-22-1991
P.O. # 641528
LAB NO. 10-8801-91
CLIENT NO. I0039

SAMPLE LOCATION 3-10-R (20-13876-91)
SAMPLED BY MORRIS WATERS
DATE SAMPLED 05-16-1991
TIME SAMPLED 14:57

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	3	MG/KG	05-22-1991
00500	RESIDUE, TOTAL (TS)	91.3	%	05-21-1991
00103	SPLIT SAMPLE FROM MELMORE	--	---	05-21-1991

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SIGNED Peter A. Goull

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6353-91
CLIENT NO. I0039

SAMPLE LOCATION 4-1-R (20-10235-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:31

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	7	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	120	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.194	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	12	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.06	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.294	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	73.5	%	04-17-1991
00193	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6354-91
CLIENT NO. 10039

SAMPLE LOCATION 4-2-R (20-10236-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:22

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	4	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	98	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.164	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	10	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.05	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.172	MG/KG	04-19-1991
00500	RESIDUE, TOTAL (TS)	81.1	%	04-17-1991
00193	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6355-91
CLIENT NO. 10039

SAMPLE LOCATION 4-3-R (20-10237-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:32

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	9-M	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	92	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.193	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	10	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.05	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.245	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	74.2	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	---	---	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Tiffany A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6356-91
CLIENT NO. I0039

SAMPLE LOCATION 4-4-R (20-10238-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:24

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3986 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	7	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	100	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.200	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	9	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG.	<0.96	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.195	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	71.5	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67169-1

LAB NO. 10-6357-91
CLIENT NO. I5039

SAMPLE LOCATION 4-5-R (20-10239-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:29

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	14-M 95	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	<0-212	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	8	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	<0.06	MG/KG	04-18-1991
71900	MERCURY, TOTAL, HG	<0.258	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	72.6	%	04-17-1991
00500	RESIDUE, TOTAL (TS)	--	--	04-17-1991
00193	SPLIT SAMPLE FROM MELMORE			

SIGNED Stephanie A. Smith

LABORATORY CERTIFICATION # 4053

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6358-91
CLIENT NO. I0039

SAMPLE LOCATION 4-6-R (20-10240-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:36

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	11-M	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	95	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.179	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	9	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.56	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.256	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	78.1	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Tiffany A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6359-91
CLIENT NO. I0039

SAMPLE LOCATION 04-07-R (20-10241-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:34

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	8-M	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	76	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.159	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	8	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.05	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.192	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	82.2	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION #-4053

SIGNED Tiffany A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6360-91
CLIENT NO. I0039

SAMPLE LOCATION 04-08-R (20-10242-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:20

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	7	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	54	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	0.530	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	18	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.08	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.171	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	85.6	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-20-1991
DATE REP'D. 05-24-1991
P.O. # 641502
LAB NO. 10-8792-91
CLIENT NO. 10039
SAMPLE LOCATION 4-8-R (20-138/8-91)
SAMPLED BY MORRIS WATERS
DATE SAMPLED 05-16-1991
TIME SAMPLED 15:12

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
WICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
00720	CYANIDE, TOTAL, CN	0.451	MG/KG	05-23-1991
01051	LEAD, TOTAL, PB	14	MG/KG	05-22-1991
00500	RESIDUE, TOTAL (TS)	79.7	%	05-21-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	05-21-1991

LABORATORY CERTIFICATION # 4053

SIGNED Peter J. Lyell

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LABORATORY ANALYSIS REPORT

DATE REC'D. 06-21-1991
DATE REP'D. 06-28-1991
P.O. # 641536
LAB NO. 10-11121-91
CLIENT NO. 10028

SAMPLE LOCATION 4R-8-2
SAMPLED BY MORRIS WATER
DATE SAMPLED 06-19-1991
TIME SAMPLED 11:55

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	11	MG/KG	06-27-1991
00500	RESIDUE, TOTAL (TS)	78.8	%	06-25-1991

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6361-91
CLIENT NO. I0039

SAMPLE LOCATION 4-9-R (20-10243-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:27

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	8	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	130	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.166	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	8	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.06	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.177	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	78.7	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O.# 67149-1

LAB NO. 10-6362-91
CLIENT NO. I0039

SAMPLE LOCATION 4-10-R (20-10244-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:38

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORE	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	5-M	MG/KG	04-19-1991
01007	BARIUM, TOTAL, BA	76	MG/KG	04-19-1991
00720	CYANIDE, TOTAL, CN	<0.161	MG/KG	04-18-1991
01051	LEAD, TOTAL, PB	9	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.07	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.239	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	75.9	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

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SIGNED Tiffany A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O.# 67168-1

LAB NO. 10-6363-91
CLIENT NO. I0039

SAMPLE LOCATION 5-1-R (20-10245-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:00

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	3-M	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	8	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.05	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.243	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	66.8	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Tiffany A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6364-91
CLIENT NO. I0039

SAMPLE LOCATION 5-2-R (20-10246-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:06

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	3	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	23	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.1	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.238	MG/KG	04-18-1991
00500	RESIDUE, TOTAL (TS)	76.3	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

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P.O. Box 436, 181 South Main Street, Marion, Ohio 43302, 614-382-5991
936 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 05-20-1991
DATE REP'D. 05-22-1991 P.O. # 641528

LAB NO. 10-8794-91
CLIENT NO. 10039

SAMPLE LOCATION 5-2-R (20-13880-91)
SAMPLED BY MORRIS WATERS

DATE SAMPLED 05-16-1991
TIME SAMPLED 16:25

FRED LEAR
CHEMICAL WASTE MANAGEMENT
2954 ST. RT. 412
MICKERY / OH 43444

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	14	MG/KG	05-22-1991
00500	RESIDUE, TOTAL (TS)	87.6	%	05-21-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	05-21-1991

LABORATORY CERTIFICATION # 4053

SIGNED Peter J. Lyall

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AQUA TECH

LABORATORY ANALYSIS REPORT

DATE REC'D. 06-21-1991
DATE REP'D. 06-23-1991
P.O. # 641536

LAB NO. 10-11122-91
CLIENT NO. 10029

SAMPLE LOCATION SR-2-2
SAMPLED BY MORRIS WATER

DATE SAMPLED 06-19-1991
TIME SAMPLED 12:05

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	19	MG/KG	06-27-1991
00500	RESIDUE, TOTAL (TS)	79.1	%	06-25-1991

LABORATORY CERTIFICATION # 4053

C-36

SIGNED Tiffany A. Smith

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838 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 07-10-1991
DATE REP'D. 07-12-1991 P.O. # 641547

LAB NO. 10-11959-91
CLIENT NO. 10039

SAMPLE LOCATION 5R-2-3
SAMPLED BY PLANT PERSONNEL

DATE SAMPLED 07-09-1991
TIME SAMPLED 09:20

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	10	MG/KG	07-12-1991
00500	RESIDUE, TOTAL (TS)	83.0	%	07-11-1991

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SIGNED Tiffany A. Tom

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O.# 67168-1

LAB NO. 10-6365-91
CLIENT NO. 10039

SAMPLE LOCATION 5-3-R (20-10247-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:09

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	4-M	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	9	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.04	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.235	MG/KG	04-17-1991
00500	RESIDUE, TOTAL (TS)	79.7	%	04-17-1991
10103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053 C=38 SIGNED Jeffrey A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6366-91
CLIENT NO. I0039

SAMPLE LOCATION 5-4-R (20-10248-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:14

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	3-M	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	6	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.07	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.224	MG/KG	04-17-1991
00500	RESIDUE, TOTAL (TS)	74.4	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Tiffany A. Smith

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936 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6367-91
CLIENT NO. I0039

SAMPLE LOCATION 5-5-R (20-10249-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:21

FRED LEAR
CHEMICAL WASTE MANAGEMENT
5956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	<2-R	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	6	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.06	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.277	MG/KG	04-17-1991
00589	RESIDUE, TOTAL (TS)	72.1	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

C-40

SIGNED Tiffany A. Smith

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935 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6368-91
CLIENT NO. I0039

SAMPLE LOCATION 5-6-R (20-10250-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:29

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	5-M	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	7	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.06	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	2.06	MG/KG	04-17-1991
00500	RESIDUE, TOTAL (TS)	67.5	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	---	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

WHITE - CLIENT YELLOW - FILE

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Water
Analysis Performed: Phenols by GC/MS
Analyst: KJP
Customer Sample No.: 5-6-R

Project No.: 67203
Date Received: 5/17/91
Date Extracted: 5/21/91
Date Analyzed: 5/30/91
ATEC Sample No.: 13881

Phenol	< 0.75

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: Phenols by GC/MS
Analyst: KJP
Customer Sample No.: 5-6-R

Project No.: 67203
Date Received: 5/17/91
Date Extracted: 5/21/91
Date Analyzed: 5/30/91
ATEC Sample No.: 13881

2-Chlorophenol	< 0.75
2,4-Dichlorophenol	< 0.75
2,4-Dimethylphenol	< 0.75
4,6-Dinitro-o-cresol	< 2.5
2,4-Dinitrophenol	< 2.5
2-Nitrophenol	< 0.75
4-Nitrophenol	< 2.5
p-Chloro-m-cresol	< 1.2
Pentachlorophenol	< 2.5
Phenol	< 0.75
2,4,6-Trichlorophenol	< 0.75

All results are reported as mg/kg (PPM) dry weight.

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LABORATORY ANALYSIS REPORT

E REC'D.	04-16-1991		LAB NO. 10-6369-91
E REP'D.	04-22-1991	P.O. # 67168-1	CLIENT NO. I0039
PLE LOCATION	5-7-R (20-10251-91)		DATE SAMPLED 04-12-1991
PLED BY	RICHARD AMBROSE		TIME SAMPLED 14:35

ED LEAR
EMICAL WASTE MANAGEMENT
56 ST. RT. 412
CKERY OH 43464

COMMENTS:

ORE	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
002	ARSENIC, TOTAL, AS	<2-R	MG/KG	04-19-1991
051	LEAD, TOTAL, PB	26	MG/KG	04-19-1991
900	MERCURY, TOTAL, HG	0.1	MG/KG	04-18-1991
730	PHENOLS, 4-AAP	<0.194	MG/KG	04-17-1991
5	RESIDUE, TOTAL (TS)	75.5	%	04-17-1991
1	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Jeffrey A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-20-1991
DATE REP'D. 05-22-1991
P.O. # 641528
LAB NO. 10-8795-91
CLIENT NO. I0039
SAMPLE LOCATION 5-7-R (2M-13882-91)
SAMPLED BY MORRIS WATERS
DATE SAMPLED 05-16-1991
TIME SAMPLED 16:40

FRED LEAR
CHEMICAL WASTE MANAGEMENT
795A ST. RT. 412
VICKERY / OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	49	MG/KG	05-22-1991
00500	RESIDUE, TOTAL (TS)	89.5	%	05-21-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	05-21-1991

LABORATORY CERTIFICATION # 4053

SIGNED Peter J. Grell

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LABORATORY ANALYSIS REPORT

E REC'D. 06-21-1991
E REP'D. 06-28-1991 P.O. # 441536

LAB NO. 10-11123-91
CLIENT NO. 10039

PLE LOCATION SR-7-2
PLED BY MORRIS WATER

DATE SAMPLED 06-19-1991
TIME SAMPLED 12:10

:ED LEAR
IEMICAL WASTE MANAGEMENT
'56 ST. RT. 412
CKERY OH 43464

COMMENTS:

ORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
051	LEAD, TOTAL, PB	21	MG/KG	06-27-1991
500	RESIDUE, TOTAL (TS)	88.6	%	06-25-1991

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LABORATORY ANALYSIS REPORT

DATE REC'D. 07-10-1991
DATE REP'D. 07-12-1991 P.O. # 641547

LAB NO. 10-11969-91
CLIENT NO. 10039

SAMPLE LOCATION SR-7-3
SAMPLED BY PLANT PERSONNEL

DATE SAMPLED 07-09-1991
TIME SAMPLED 09:25

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	11	MG/KG	07-12-1991
00500	RESIDUE, TOTAL (TS)	79.6	%	07-11-1991

LABORATORY CERTIFICATION # 4053

SIGNED Stephen A. Smith

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LABORATORY ANALYSIS REPORT

REC'D. 04-16-1991
REP'D. 04-22-1991 P.O. # 67168-1

LAB NO. 10-6370-91
CLIENT NO. 10039

LE LOCATION 5-8-R (20-10252-91)
LED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:26

D LEAR
MICAL WASTE MANAGEMENT
6 ST. RT. 412
KERY OH 43464

COMMENTS:

REF	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
02	ARSENIC, TOTAL, AS	2-M	MG/KG	04-19-1991
51	LEAD, TOTAL, PB	32	MG/KG	04-19-1991
00	MERCURY, TOTAL, HG	0.06	MG/KG	04-18-1991
30	PHENOLS, 4-AAP	<0.217	MG/KG	04-17-1991
00	RESIDUE, TOTAL (TS)	76.8	%	04-17-1991
0	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

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SIGNED Tiffany A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-20-1991
DATE REP'D. 05-22-1991
P.O. # 441529
LAB NO. 10-8791-91
CLIENT NO. 10439

SAMPLE LOCATION 5-6-R (20-13883-91)
SAMPLED BY MORRIS WATERS
DATE SAMPLED 05-16-1991
TIME SAMPLED 16:50

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3456 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	29	MG/KG	05-22-1991
00500	RESIDUE, TOTAL (TS)	86.2	%	05-21-1991
00103	SPLIT SAMPLE FROM MELMORE	---	---	05-21-1991

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SIGNED Peter J. Goull

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AQUA TECH

LABORATORY ANALYSIS REPORT

DATE REC'D. 06-21-1991
DATE REP'D. 06-28-1991
P.O. # 441536

LAB NO. 1K-11124-91
CLIENT NO. 1003P

SAMPLE LOCATION SR-8-2
SAMPLED BY MORRIS WATER

DATE SAMPLED 06-19-1991
TIME SAMPLED 12:20

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	18	MG/KG	06-27-1991
00500	RESIDUE, TOTAL (TS)	79.1	%	06-25-1991

SIGNED Gary A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D 07-10-1991
DATE REP'D. 07-12-1991 P.O. # 641547

LAB NO. 10-11961-91
CLIENT NO. I0039

SAMPLE LOCATION SR-0-3
SAMPLED BY PLANT PERSONNEL

DATE SAMPLED 07-09-1991
TIME SAMPLED 09:35

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01051	LEAD, TOTAL, PB	12	MG/KG	07-12-1991
00300	RESIDUE, TOTAL (TS)	02.2	%	07-11-1991

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SIGNED Jeffrey A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991 P.O.# 67168-1

LAB NO. 10-6371-91
CLIENT NO. 10039

SAMPLE LOCATION S-9-R (20-10253-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:38

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	<2-R	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	6	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.05	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.231	MG/KG	04-17-1991
00500	RESIDUE, TOTAL (TS)	78.7	%	04-17-1991
60103	SPLIT SAMPLE FROM MELMORE	--	---	04-17-1991

SIGNED Tiffany A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-22-1991
P.O. # 67168-1
LAB NO. 10-6372-91
CLIENT NO. 10039
DATE SAMPLED 04-12-1991
TIME SAMPLED 14:38
SAMPLE LOCATION S-10-R (20-10254-91)
SAMPLED BY RICHARD AMBROSE

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	3	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	11	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	(0.05	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	1.43	MG/KG	04-17-1991
00500	RESIDUE, TOTAL (TS)	79.5	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	

SIGNED Tiffany A. Smith

LABORATORY CERTIFICATION # 4053

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Water
Analysis Performed: Phenols by GC/MS
Analyst: KJP
Customer Sample No.: 5-10-R

Project No.: 67203
Date Received: 5/17/91
Date Extracted: 5/21/91
Date Analyzed: 5/30/91
ATEC Sample No.: 13884

Phenol	< 0.75

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Customer Name: Chemical Waste Management
Sample Type: Soil
Analysis Performed: Phenols by GC/MS
Analyst: KJP
Customer Sample No.: 5-10-R

Project No.: 67203
Date Received: 5/17/91
Date Extracted: 5/21/91
Date Analyzed: 5/30/91
ATEC Sample No.: 13884

2-Chlorophenol	< 0.75
2,4-Dichlorophenol	< 0.75
2,4-Dimethylphenol	< 0.75
4,6-Dinitro-o-cresol	< 2.5
2,4-Dinitrophenol	< 2.5
2-Nitrophenol	< 0.75
4-Nitrophenol	< 2.5
p-Chloro-m-cresol	< 1.2
Pentachlorophenol	< 2.5
Phenol	< 0.75
2,4,6-Trichlorophenol	< 0.75

All results are reported as mg/kg (PPM) dry weight.

AQUA TECH
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P.O. Box 78, Melmore, Ohio 44845, 419-397-2659 or 397-2222
P.O. Box 436, 151 South Main Street, Marion, Ohio 43302, 614-382-6991
936 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-24-1991 P.O. # 67168-1

LAB NO. 10-6373-91
CLIENT NO. I0039

SAMPLE LOCATION 7-1-R (20-10255-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:42

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

ASSTORE	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	15	MG/KG	04-19-1991
01034	CHROMIUM, TOTAL, CR	13	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	11	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.08	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	0.415	MG/KG	04-23-1991
00500	RESIDUE, TOTAL (TS)	78.6	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Tiffany A. Smith

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Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-17751-MEL
Client Description: 7R-1-2
Date Recieved: 06/22/91
Date Extracted: 06/24/91
Date Analyzed: 07/14/91

Method: SW-846; 8270
Sample Type: SOIL
Percent Solids: 75.5
Analyst: KJP
Project No.: 641543

Compound	Concentration mg/kg (ppm) dry wt.
2-Chlorophenol	< 0.75
2,4-Dichlorophenol	< 0.75
2,4-Dimethylphenol	< 0.75
4,6-Dinitro-o-Cresol	< 2.5
2,4-Dinitrophenol	< 2.5
2-Nitrophenol	< 0.75
4-Nitrophenol	< 2.5
p-Chloro-m-Cresol	< 1.2
Pentachlorophenol	< 2.5
Phenol	< 0.75
2,4,6-Trichlorophenol	< 0.75

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936 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-24-1991 P.O. # 67168-1

LAB NO. 10-6374-91
CLIENT NO. I0039

SAMPLE LOCATION 7-2-R (20-10256-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:45

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	7	MG/KG	04-19-1991
01034	CHROMIUM, TOTAL, CR	13	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	8	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.08	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.201	MG/KG	04-23-1991
00500	RESIDUE, TOTAL (TS)	78.7	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

C-58

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936 North Homer Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-24-1991 P.O.# 67168-1

LAB NO. 10-6375-91
CLIENT NO. I0039

SAMPLE LOCATION 7-3-R (20-10257-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:46

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	6	MG/KG	04-19-1991
01034	CHROMIUM, TOTAL, CR	13	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	9	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.08	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.228	MG/KG	04-23-1991
00500	RESIDUE, TOTAL (TS)	73.0	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-24-1991 P.O. # 67168-1

LAB NO. 10-6376-91
CLIENT NO. I0039

SAMPLE LOCATION 7-4-R (20-10258-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:48

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	2	MG/KG	04-19-1991
01034	CHROMIUM, TOTAL, CR	12	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	7	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.08	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	0.564	MG/KG	04-23-1991
00500	RESIDUE, TOTAL (TS)	73.3	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Tiffany A. Smith

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MNG.
ATEC Sample No.: 91-17749-MEL
Client Description: 7R-4-2
Date Recieved: 06/22/91
Date Extracted: 06/24/91
Date Analyzed: 07/14/91

Method: SW-846; 8270
Sample Type: SOIL
Percent Solids: 80.8
Analyst: KJP
Project No.: 641543

Compound	Concentration mg/kg (ppm) dry wt.
2-Chlorophenol	< 0.75
2,4-Dichlorophenol	< 0.75
2,4-Dimethylphenol	< 0.75
4,6-Dinitro-o-Cresol	< 2.5
2,4-Dinitrophenol	< 2.5
2-Nitrophenol	< 0.75
4-Nitrophenol	< 2.5
p-Chloro-m-Cresol	< 1.2
Pentachlorophenol	< 2.5
Phenol	< 0.75
2,4,6-Trichlorophenol	< 0.75

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-24-1991 P.O. # 67168-1

LAB NO. 10-6377-91
CLIENT NO. I0039

SAMPLE LOCATION 7-5-R (20-10259-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:50

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORE	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	13-M	MG/KG	04-19-1991
01034	CHROMIUM, TOTAL, CR	13	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	7	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.07	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.245	MG/KG	04-23-1991
00500	RESIDUE, TOTAL (TS)	74.2	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

SIGNED Tiffany A. Smith

LABORATORY CERTIFICATION # 4053

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-24-1991 P.O. # 67168-1

LAB NO. 10-6378-91
CLIENT NO. I0039

SAMPLE LOCATION 7-6-R (20-10260-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:53

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	5	MG/KG	04-19-1991
01034	CHROMIUM, TOTAL, CR	12	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	11	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.09	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.184	MG/KG	04-23-1991
00500	RESIDUE, TOTAL (TS)	70.8	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

C-63

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LABORATORY ANALYSIS REPORT

REC'D. 04-16-1991
REP'D. 04-24-1991 P.O # 67168-1

LAB NO. 10-6379-91
CLIENT NO. I0039

PLE LOCATION 7-7-R (20-10261-91)
PLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:55

D LEAR
EMICAL WASTE MANAGEMENT
56 ST. RT. 412
CKERY OH 43464

COMMENTS:

REF	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
002	ARSENIC, TOTAL, AS	5	MG/KG	04-19-1991
034	CHROMIUM, TOTAL, CR	4	MG/KG	04-19-1991
051	LEAD, TOTAL, PB	10	MG/KG	04-19-1991
900	MERCURY, TOTAL, HG	1.5	MG/KG	04-18-1991
7	PHENOLS, 4-AAP	<0.210	MG/KG	04-23-1991
50	RESIDUE, TOTAL (TS)	86.6	%	04-17-1991
103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

SIGNED Stephen A. Smith

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LABORATORY ANALYSIS REPORT

DATE REC'D. 05-20-1991
DATE REP'D. 05-22-1991
P.O. # 641528
LAB NO. 10-8793-91
CLIENT NO. 10039

SAMPLE LOCATION 7-2-R (20-13879-91)
SAMPLED BY MORRIS WATERS
DATE SAMPLED 05-16-1991
TIME SAMPLED 15:20

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3950 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
71900	MERCURY, TOTAL, HG	<0.06	MG/KG	05-21-1991
00500	RESIDUE, TOTAL (TS)	77.3	%	05-21-1991
00103	SPLIT SAMPLE FROM MELMORE	---	---	05-21-1991

LABORATORY CERTIFICATION # 4053

SIGNED Peter J. Goell

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LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-24-1991 P.O. # 67168-1

LAB NO. 10-6380-91
CLIENT NO. I0039

SAMPLE LOCATION 7-8-R (20-10262-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:41

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	4	MG/KG	04-19-1991
01034	CHROMIUM, TOTAL, CR	14	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	10	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.08	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	0.266	MG/KG	04-23-1991
00500	RESIDUE, TOTAL (TS)	73.0	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

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Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MNG.
ATEC Sample No.: 91-17750-MEL
Client Description: 7R-8-2
Date Recieved: 06/22/91
Date Extracted: 06/24/91
Date Analyzed: 07/14/91

Method: SW-846; 8270
Sample Type: SOIL
Percent Solids: 77.1
Analyst: KJP
Project No.: 641543

Compound	Concentration mg/kg (ppm) dry wt.
2-Chlorophenol	< 0.75
2,4-Dichlorophenol	< 0.75
2,4-Dimethylphenol	< 0.75
4,6-Dinitro-o-Cresol	< 2.5
2,4-Dinitrophenol	< 2.5
2-Nitrophenol	< 0.75
4-Nitrophenol	< 2.5
p-Chloro-m-Cresol	< 1.2
Pentachlorophenol	< 2.5
Phenol	< 0.75
2,4,6-Trichlorophenol	< 0.75

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836 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-24-1991 P.O. # 67168-1

LAB NO. 10-6381-91
CLIENT NO. I0039

SAMPLE LOCATION 7-9-R (20-10263-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 14:57

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	7	MG/KG	04-19-1991
01034	CHROMIUM, TOTAL, CR	12	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	12	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	0.1	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	<0.187	MG/KG	04-23-1991
00500	RESIDUE, TOTAL (TS)	78.4	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

LABORATORY CERTIFICATION # 4053

C-68

SIGNED Tiffany A. Smith

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936 North Horner Blvd., Sanford, North Carolina 27330

LABORATORY ANALYSIS REPORT

DATE REC'D. 04-16-1991
DATE REP'D. 04-24-1991 P.O. # 67168-1

LAB NO. 10-6382-91
CLIENT NO. I0039

SAMPLE LOCATION 7-10-R (20-10264-91)
SAMPLED BY RICHARD AMBROSE

DATE SAMPLED 04-12-1991
TIME SAMPLED 15:00

FRED LEAR
CHEMICAL WASTE MANAGEMENT
3956 ST. RT. 412
VICKERY OH 43464

COMMENTS:

STORET	ANALYSIS	RESULT	UNITS	DATE OF ANALYSIS
01002	ARSENIC, TOTAL, AS	5	MG/KG	04-19-1991
01034	CHROMIUM, TOTAL, CR	10	MG/KG	04-19-1991
01051	LEAD, TOTAL, PB	9	MG/KG	04-19-1991
71900	MERCURY, TOTAL, HG	<0.06	MG/KG	04-18-1991
32730	PHENOLS, 4-AAP	0.594	MG/KG	04-23-1991
00500	RESIDUE, TOTAL (TS)	82.9	%	04-17-1991
00103	SPLIT SAMPLE FROM MELMORE	--	--	04-17-1991

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LABORATORY CERTIFICATION # 4053

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-17752-MEL
Client Description: 7R-10-2
Date Recieved: 06/22/91
Date Extracted: 06/24/91
Date Analyzed: 07/14/91

Method: SW-846; 8270
Sample Type: SOIL
Percent Solids: 78.7
Analyst: KJP
Project No.: 641543

Compound	Concentration mg/kg (ppm) dry wt.
2-Chlorophenol	< 1.2
2,4-Dichlorophenol	< 0.75
2,4-Dimethylphenol	< 0.75
4,6-Dinitro-o-Cresol	< 2.5
2,4-Dinitrophenol	< 2.5
2-Nitrophenol	< 0.75
4-Nitrophenol	< 2.5
p-Chloro-m-Cresol	< 1.2
Pentachlorophenol	< 2.5
Phenol	< 0.75
2,4,6-Trichlorophenol	< 0.75

AQUA TECH ENVIRONMENTAL CONSULTANTS INC.
RESULT SHEET

istomer Name: Chemical Waste Management
oject No.: 67168-1
alysis Performed: Purgeable Organics
mple Type: Soil

Method No.: 8240
Date Received: 04/12/91
Date Analyzed: 04/18/91
Analyst: DWH

ATEC No.	Sample Decription	Percent Solid	Chlorobenzene	Trichlorofluorometha
10235	4-1-R	77.2	0.010	< 0.020
10236	4-2-R	82.3	< 0.005	< 0.020
10237	4-3-R	73.8	< 0.005	< 0.020
10238	4-4-R	75.6	< 0.005	< 0.020
10239	4-5-R	73.7	< 0.005	< 0.020
10240	4-6-R	81.8	< 0.005	< 0.020
10241	4-7-R	82.9	< 0.005	< 0.020
10242	4-8-R	86.3	< 0.005	0.365
10243	4-9-R	80.7	< 0.005	< 0.020
10244	4-10-R	76.3	< 0.005	< 0.020
10255	7-1-R	80.5	< 0.005	< 0.020
10256	7-2-R	81.8	< 0.005	< 0.020
10257	7-3-R	75.8	< 0.005	< 0.020
10258	7-4-R	75.9	< 0.005	< 0.020
10259	7-5-R	76.8	< 0.005	< 0.020
10260	7-6-R	72.2	< 0.005	< 0.020
10261	7-7-R	87.0	< 0.005	< 0.020
10262	7-8-R	75.4	< 0.005	< 0.020
10263	7-9-R	79.6	< 0.005	< 0.020
10264	7-10-R	82.5	< 0.005	< 0.020

:l results are reported as ug/l (PPB).

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

Client: Chemical Waste Management
Sample Type: Soil
Analysis Performed: Purgeable Organics
Analyst: DWH

Project No.: 641528
Date Received: 5/17/91
Date Analyzed: 5/21/91
Method No.: SW-846; 8240

ATEC Sample No.:	13877	13878
Client Sample No.:	4-1-R	4-8-R
Percent Solids	89.0	81.6
Chlorobenzene	< 0.005	-----
Trichlorofluoromethane	-----	0.035 F

All results reported as mg/kg (PPM).

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-17832-MEL
Client Description: 4R-8-2,10-11121
Date Received: 06/24/91
Date Extracted:
Date Analyzed: 07/03/91

Method: SW-846; 8240
Sample Type: SOIL
Percent Solids: 82
Analyst: DWH
Project No.: 641536

Compound	Concentration - mg/kg (ppm) dry wt
Trichlorofluoromethane	< 0.010

ATTACHMENT D

W-5 SOIL ANALYSIS RESULTS FOR F WASTE AND PCB CONSTITUENTS

BOWSER MORNER

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME:	Chemical Waste Management	METHOD:	8240
SAMPLE TYPE:	Soil	DATE RECEIVED:	06/14/90
ANALYSIS PERFORMED:	Purgeables by GC/MS	DATE ANALYZED:	06/21/90
ANALYST:	DWH	ATEC LAB NO.:	8171
PERCENT SOLIDS:	83.4	CLIENT NO.:	5-68-2

RESULTS

CLASSIFICATION	COMPOUND	CONCENTRATION (mg/kg)
F001		
	Tetrachloroethene	<0.005
	Methylene Chloride	<0.005
	Trichloroethene	<0.005
	1,1,1-Trichloroethane	<0.005
	Carbon Tetrachloride	<0.005
	Trichlorofluormethane	<0.020
	Dichlorodifluoromethane	<0.020
F002		
	1,1,2-Trichloroethane	<0.005
	Chlorobenzene	<0.005
	1,1,2-Trichlorotrifluoroethan	<0.020
	1,2-Dichlorobenzene	<0.005
F003		
	Xylenes (total)	<0.005
	Acetone	<0.100
	Ethyl Acetate	<0.100
	Ethyl Benzene	<0.005
	Ethyl Ether	<0.100
	Methyl Isobutyl Ketone (MIBK)	<0.050
	n-Butyl Alcohol	<0.100
	Cyclohexanone	<0.100
	Methanol (GC/FID)	Not available by 8240.
F005		
	Toluene	<0.005
	Methyl Ethyl Ketone	<0.100
	Carbon Disulfide	<0.005
	Isobutanol	<0.100
	2-Ethoxyethanol	<0.100
	Benzene	<0.005
	2-Nitropropane (GC/FID)	Not available by 8240.
	Pyridine	This compound should be analyzed by method 8270.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME:	Chemical Waste Management	METHOD:	8240
SAMPLE TYPE:	Soil	DATE RECEIVED:	06/14/90
ANALYSIS PERFORMED:	Purgeables by GC/MS	DATE ANALYZED:	06/21/90
ANALYST:	DWH	ATEC LAB NO.:	8172
PERCENT SOLIDS:	86.6	CLIENT NO.:	5-70-2

RESULTS

CLASSIFICATION	COMPOUND	CONCENTRATION (mg/kg)
F001	Tetrachloroethene	<0.005
	Methylene Chloride	<0.005
	Trichloroethene	<0.005
	1,1,1-Trichloroethane	<0.005
	Carbon Tetrachloride	<0.005
	Trichlorofluormethane	<0.020
	Dichlorodifluoromethane	<0.020
F002	1,1,2-Trichloroethane	<0.005
	Chlorobenzene	<0.005
	1,1,2-Trichlorotrifluoroethan	<0.020
	1,2-Dichlorobenzene	<0.005
F003	Xylenes (total)	<0.005
	Acetone	0.688
	Ethyl Acetate	<0.100
	Ethyl Benzene	<0.005
	Ethyl Ether	<0.100
	Methyl Isobutyl Ketone (MIBK)	<0.050
	n-Butyl Alcohol	<0.100
	Cyclohexanone	<0.100
	Methanol (GC/FID)	Not available by 8240.
F005	Toluene	<0.005
	Methyl Ethyl Ketone	0.148
	Carbon Disulfide	<0.005
	Isobutanol	<0.100
	2-Ethoxyethanol	<0.100
	Benzene	<0.005
	2-Nitropropane (GC/FID)	Not available by 8240.
	Pyridine	This compound should be analyzed by method 8270.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME:	Chemical Waste Management	METHOD:	8240
SAMPLE TYPE:	Soil	DATE RECEIVED:	06/14/90
ANALYSIS PERFORMED:	Purgeables by GC/MS	DATE ANALYZED:	06/21/90
ANALYST:	DWH	ATEC LAB NO.:	8173
PERCENT SOLIDS:	81.8	CLIENT NO.:	5-73-2

RESULTS

CLASSIFICATION	COMPOUND	CONCENTRATION (mg/kg)
F001		
	Tetrachloroethene	<0.005
	Methylene Chloride	<0.005
	Trichloroethene	<0.005
	1,1,1-Trichloroethane	<0.005
	Carbon Tetrachloride	<0.005
	Trichlorofluormethane	<0.020
	Dichlorodifluoromethane	<0.020
F002		
	1,1,2-Trichloroethane	<0.005
	Chlorobenzene	<0.005
	1,1,2-Trichlorotrifluoroethan	<0.020
	1,2-Dichlorobenzene	<0.005
F003		
	Xylenes (total)	<0.005
	Acetone	0.241
	Ethyl Acetate	<0.100
	Ethyl Benzene	<0.005
	Ethyl Ether	<0.100
	Methyl Isobutyl Ketone (MIBK)	<0.050
	n-Butyl Alcohol	<0.100
	Cyclohexanone	<0.100
	Methanol (GC/FID)	Not available by 8240.
F005		
	Toluene	<0.005
	Methyl Ethyl Ketone	<0.100
	Carbon Disulfide	<0.005
	Isobutanol	<0.100
	2-Ethoxyethanol	<0.100
	Benzene	<0.005
	2-Nitropropane (GC/FID)	Not available by 8240.
	Pyridine	This compound should be analyzed by method 8270.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME:	Chemical Waste Management	METHOD:	8240
SAMPLE TYPE:	Soil	DATE RECEIVED:	06/14/90
ANALYSIS PERFORMED:	Purgeables by GC/MS	DATE ANALYZED:	06/21/90
ANALYST:	DWH	ATEC LAB NO.:	8174
PERCENT SOLIDS:	85.8	CLIENT NO.:	5-79-2

RESULTS

CLASSIFICATION	COMPOUND	CONCENTRATION (mg/kg)
F001		
	Tetrachloroethene	<0.005
	Methylene Chloride	<0.005
	Trichloroethene	<0.005
	1,1,1-Trichloroethane	<0.005
	Carbon Tetrachloride	<0.005
	Trichlorofluormethane	<0.020
	Dichlorodifluoromethane	<0.020
F002		
	1,1,2-Trichloroethane	<0.005
	Chlorobenzene	<0.005
	1,1,2-Trichlorotrifluoroethan	<0.020
	1,2-Dichlorobenzene	<0.005
F003		
	Xylenes (total)	<0.005
	Acetone	0.257
	Ethyl Acetate	<0.100
	Ethyl Benzene	<0.005
	Ethyl Ether	<0.100
	Methyl Isobutyl Ketone (MIBK)	<0.050
	n-Butyl Alcohol	<0.100
	Cyclohexanone	<0.100
	Methanol (GC/FID)	Not available by 8240.
F005		
	Toluene	<0.005
	Methyl Ethyl Ketone	<0.100
	Carbon Disulfide	<0.005
	Isobutanol	<0.100
	2-Ethoxyethanol	<0.100
	Benzene	<0.005
	2-Nitropropane (GC/FID)	Not available by 8240.
	Pyridine	This compound should be analyzed by method 8270.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME:	Chemical Waste Management	METHOD:	8240
SAMPLE TYPE:	Soil	DATE RECEIVED:	06/14/90
ANALYSIS PERFORMED:	Purgeables by GC/MS	DATE ANALYZED:	06/21/90
ANALYST:	DWH	ATEC LAB NO.:	8175
PERCENT SOLIDS:	83.7	CLIENT NO.:	5-82-2

RESULTS

CLASSIFICATION	COMPOUND	CONCENTRATION (mg/kg)
F001		
	Tetrachloroethene	<0.005
	Methylene Chloride	<0.005
	Trichloroethene	<0.005
	1,1,1-Trichloroethane	<0.005
	Carbon Tetrachloride	<0.005
	Trichlorofluormethane	<0.020
	Dichlorodifluoromethane	<0.020
F002		
	1,1,2-Trichloroethane	<0.005
	Chlorobenzene	<0.005
	1,1,2-Trichlorotrifluoroethan	<0.020
	1,2-Dichlorobenzene	<0.005
F003		
	Xylenes (total)	<0.005
	Acetone	<0.100
	Ethyl Acetate	<0.100
	Ethyl Benzene	<0.005
	Ethyl Ether	<0.100
	Methyl Isobutyl Ketone (MIBK)	<0.050
	n-Butyl Alcohol	<0.100
	Cyclohexanone	<0.100
	Methanol (GC/FID)	Not available by 8240.
F005		
	Toluene	<0.005
	Methyl Ethyl Ketone	<0.100
	Carbon Disulfide	<0.005
	Isobutanol	<0.100
	2-Ethoxyethanol	<0.100
	Benzene	<0.005
	2-Nitropropane (GC/FID)	Not available by 8240.
	Pyridine	This compound should be analyzed by method 8270.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME:	Chemical Waste Management	METHOD:	8240
SAMPLE TYPE:	Soil	DATE RECEIVED:	06/14/90
ANALYSIS PERFORMED:	Purgeables by GC/MS	DATE ANALYZED:	06/21/90
ANALYST:	DWH	ATEC LAB NO.:	8176
PERCENT SOLIDS:	85.5	CLIENT NO.:	5-83-2

RESULTS

CLASSIFICATION	COMPOUND	CONCENTRATION (mg/kg)
F001		
	Tetrachloroethene	<0.005
	Methylene Chloride	<0.005
	Trichloroethene	<0.005
	1,1,1-Trichloroethane	<0.005
	Carbon Tetrachloride	<0.005
	Trichlorofluormethane	<0.020
	Dichlorodifluoromethane	<0.020
F002		
	1,1,2-Trichloroethane	<0.005
	Chlorobenzene	<0.005
	1,1,2-Trichlorotrifluoroethan	<0.020
	1,2-Dichlorobenzene	<0.005
F003		
	Xylenes (total)	<0.005
	Acetone	<0.100
	Ethyl Acetate	<0.100
	Ethyl Benzene	<0.005
	Ethyl Ether	<0.100
	Methyl Isobutyl Ketone (MIBK)	<0.050
	n-Butyl Alcohol	<0.100
	Cyclohexanone	<0.100
	Methanol (GC/FID)	Not available by 8240.
F005		
	Toluene	<0.005
	Methyl Ethyl Ketone	<0.100
	Carbon Disulfide	<0.005
	Isobutanol	<0.100
	2-Ethoxyethanol	<0.100
	Benzene	<0.005
	2-Nitropropane (GC/FID)	Not available by 8240.
	Pyridine	This compound should be analyzed by method 8270.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME:	Chemical Waste Management	METHOD:	8240
SAMPLE TYPE:	Soil	DATE RECEIVED:	06/14/90
ANALYSIS PERFORMED:	Purgeables by GC/MS	DATE ANALYZED:	06/21/90
ANALYST:	DWH	ATEC LAB NO.:	8177
PERCENT SOLIDS:	87.1	CLIENT NO.:	5-85-2

RESULTS

CLASSIFICATION	COMPOUND	CONCENTRATION (mg/kg)
F001		
	Tetrachloroethene	<0.005
	Methylene Chloride	<0.005
	Trichloroethene	<0.005
	1,1,1-Trichloroethane	<0.005
	Carbon Tetrachloride	<0.005
	Trichlorofluormethane	<0.020
	Dichlorodifluoromethane	<0.020
F002		
	1,1,2-Trichloroethane	<0.005
	Chlorobenzene	<0.005
	1,1,2-Trichlorotrifluoroethan	<0.020
	1,2-Dichlorobenzene	<0.005
F003		
	Xylenes (total)	<0.005
	Acetone	<0.100
	Ethyl Acetate	<0.100
	Ethyl Benzene	<0.005
	Ethyl Ether	<0.100
	Methyl Isobutyl Ketone (MIBK)	<0.050
	n-Butyl Alcohol	<0.100
	Cyclohexanone	<0.100
	Methanol (GC/FID)	Not available by 8240.
F005		
	Toluene	<0.005
	Methyl Ethyl Ketone	<0.100
	Carbon Disulfide	<0.005
	Isobutanol	<0.100
	2-Ethoxyethanol	<0.100
	Benzene	<0.005
	2-Nitropropane (GC/FID)	Not available by 8240.
	Pyridine	This compound should be analyzed by method 8270.

AQUA TECH ENVIRONMENTAL CONSULTANTS, INC.
RESULT SHEET

CUSTOMER NAME:	Chemical Waste Management	METHOD:	8240
SAMPLE TYPE:	Soil	DATE RECEIVED:	06/14/90
ANALYSIS PERFORMED:	Purgeables by GC/MS	DATE ANALYZED:	06/21/90
ANALYST:	DWH	ATEC LAB NO.:	8178
PERCENT SOLIDS:	87.6	CLIENT NO.:	5-87-2

RESULTS

CLASSIFICATION	COMPOUND	CONCENTRATION (mg/kg)
F001		
	Tetrachloroethene	<0.005
	Methylene Chloride	<0.005
	Trichloroethene	<0.005
	1,1,1-Trichloroethane	<0.005
	Carbon Tetrachloride	<0.005
	Trichlorofluormethane	<0.020
	Dichlorodifluoromethane	<0.020
F002		
	1,1,2-Trichloroethane	<0.005
	Chlorobenzene	<0.005
	1,1,2-Trichlorotrifluoroethan	<0.020
	1,2-Dichlorobenzene	<0.005
F003		
	Xylenes (total)	<0.005
	Acetone	<0.100
	Ethyl Acetate	<0.100
	Ethyl Benzene	<0.005
	Ethyl Ether	<0.100
	Methyl Isobutyl Ketone (MIBK)	<0.050
	n-Butyl Alcohol	<0.100
	Cyclohexanone	<0.100
	Methanol (GC/FID)	Not available by 8240.
F005		
	Toluene	<0.005
	Methyl Ethyl Ketone	<0.100
	Carbon Disulfide	<0.005
	Isobutanol	<0.100
	2-Ethoxyethanol	<0.100
	Benzene	<0.005
	2-Nitropropane (GC/FID)	Not available by 8240.
	Pyridine	This compound should be analyzed by method 8270.

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
Sample Type: SOIL
Date Recieved: 12/18/91
Date Extracted: 12/18/91
Date Analyzed: 12/18/91

Method: SW-846; 8015
Percent Solids:
Analyst: JGC
Project No.: 643711
Units: mg/kg (ppm) dry wt.

Selected Compounds by Gas Chromatography

ATEC Sample	Client Description	Methanol	Pyridine	2-Nitropropane
1-33661-MEL	1	< 1.0	< 1.0	< 1.0
91-33662-MEL	2	< 1.0	< 1.0	< 1.0
91-33663-MEL	3	< 1.0	< 1.0	< 1.0
91-33664-MEL	4	< 1.0	< 1.0	< 1.0
91-33665-MEL	5	< 1.0	< 1.0	< 1.0
91-33666-MEL	6	< 1.0	< 1.0	< 1.0
91-33667-MEL	7	< 1.0	< 1.0	< 1.0
91-33668-MEL	8	< 1.0	< 1.0	< 1.0
91-33669-MEL	9	< 1.0	< 1.0	< 1.0
91-33670-MEL	10	< 1.0	< 1.0	< 1.0

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-33661-MEL
Date Received: 12/18/91
Date Extracted: 12/18/91
Date Analyzed: 12/19/91
Client Description: 1

Method: SW-846; 8080
Sample Type: SOIL
Percent Solids: 82.7
Analyst: CMR
Project No.: 643711

Compound	Concentration mg/kg (ppm) dry wt.
Aroclor 1016	< 0.1
Aroclor 1221	< 0.1
Aroclor 1232	< 0.1
Aroclor 1242	< 0.1
Aroclor 1248	< 0.1
Aroclor 1254	< 0.1
Aroclor 1260	< 0.1

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-33662-MEL
Date Received: 12/18/91
Date Extracted: 12/18/91
Date Analyzed: 12/19/91
Client Description: 2

Method: SW-846; 8080
Sample Type: SOIL
Percent Solids: 79.1
Analyst: CMR
Project No.: 643711

Compound	Concentration mg/kg (ppm) dry wt.
Aroclor 1016	< 0.1
Aroclor 1221	< 0.1
Aroclor 1232	< 0.1
Aroclor 1242	< 0.1
Aroclor 1248	< 0.1
Aroclor 1254	< 0.1
Aroclor 1260	< 0.1

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-33663-MEL
Date Received: 12/18/91
Date Extracted: 12/18/91
Date Analyzed: 12/19/91
Client Description: 3

Method: SW-846; 8080
Sample Type: SOIL
Percent Solids: 83.6
Analyst: CMR
Project No.: 643711

Compound	Concentration mg/kg (ppm) dry wt.
Aroclor 1016	< 0.1
Aroclor 1221	< 0.1
Aroclor 1232	< 0.1
Aroclor 1242	< 0.1
Aroclor 1248	< 0.1
Aroclor 1254	< 0.1
Aroclor 1260	< 0.1

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-33664-MEL
Date Received: 12/18/91
Date Extracted: 12/18/91
Date Analyzed: 12/19/91
Client Description: 4

Method: SW-846; 8080
Sample Type: SOIL
Percent Solids: 81.2
Analyst: CMR
Project No.: 643711

Compound	Concentration mg/kg (ppm) dry wt.
Aroclor 1016	< 0.1
Aroclor 1221	< 0.1
Aroclor 1232	< 0.1
Aroclor 1242	< 0.1
Aroclor 1248	< 0.1
Aroclor 1254	< 0.1
Aroclor 1260	< 0.1

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-33665-MEL
Date Received: 12/18/91
Date Extracted: 12/18/91
Date Analyzed: 12/19/91
Client Description: 5

Method: SW-846; 8080
Sample Type: SOIL
Percent Solids: 88.1
Analyst: CMR
Project No.: 643711

Compound	Concentration mg/kg (ppm) dry wt.
Aroclor 1016	< 0.1
Aroclor 1221	< 0.1
Aroclor 1232	< 0.1
Aroclor 1242	< 0.1
Aroclor 1248	< 0.1
Aroclor 1254	< 0.1
Aroclor 1260	< 0.1

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-33666-MEL
Date Received: 12/18/91
Date Extracted: 12/18/91
Date Analyzed: 12/19/91
Client Description: 6

Method: SW-846; 8080
Sample Type: SOIL
Percent Solids: 85.7
Analyst: CMR
Project No.: 643711

Compound	Concentration mg/kg (ppm) dry wt.
Aroclor 1016	< 0.1
Aroclor 1221	< 0.1
Aroclor 1232	< 0.1
Aroclor 1242	< 0.1
Aroclor 1248	< 0.1
Aroclor 1254	< 0.1
Aroclor 1260	< 0.1

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-33667-MEL
Date Received: 12/18/91
Date Extracted: 12/18/91
Date Analyzed: 12/19/91
Client Description: 7

Method: SW-846; 8080
Sample Type: SOIL
Percent Solids: 83.6
Analyst: CMR
Project No.: 643711

Compound	Concentration mg/kg (ppm) dry wt.
Aroclor 1016	< 0.1
Aroclor 1221	< 0.1
Aroclor 1232	< 0.1
Aroclor 1242	< 0.1
Aroclor 1248	< 0.1
Aroclor 1254	< 0.1
Aroclor 1260	< 0.1

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-33668-MEL
Date Received: 12/18/91
Date Extracted: 12/18/91
Date Analyzed: 12/19/91
Client Description: 8

Method: SW-846; 8080
Sample Type: SOIL
Percent Solids: 90.3
Analyst: CMR
Project No.: 643711

Compound	Concentration mg/kg (ppm) dry wt.
Aroclor 1016	< 0.1
Aroclor 1221	< 0.1
Aroclor 1232	< 0.1
Aroclor 1242	< 0.1
Aroclor 1248	< 0.1
Aroclor 1254	< 0.1
Aroclor 1260	< 0.1

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-33669-MEL
Date Received: 12/18/91
Date Extracted: 12/18/91
Date Analyzed: 12/19/91
Client Description: 9

Method: SW-846; 8080
Sample Type: SOIL
Percent Solids: 82.4
Analyst: CMR
Project No.: 643711

Compound	Concentration mg/kg (ppm) dry wt.
Aroclor 1016	< 0.1
Aroclor 1221	< 0.1
Aroclor 1232	< 0.1
Aroclor 1242	< 0.1
Aroclor 1248	< 0.1
Aroclor 1254	< 0.1
Aroclor 1260	< 0.1

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 91-33670-MEL
Date Received: 12/18/91
Date Extracted: 12/18/91
Date Analyzed: 12/19/91
Client Description: 10

Method: SW-846; 8080
Sample Type: SOIL
Percent Solids: 73.3
Analyst: CMR
Project No.: 643711

Compound	Concentration mg/kg (ppm) dry wt.
Aroclor 1016	< 0.1
Aroclor 1221	< 0.1
Aroclor 1232	< 0.1
Aroclor 1242	< 0.1
Aroclor 1248	< 0.1
Aroclor 1254	< 0.1
Aroclor 1260	< 0.1

Aqua Tech Environmental Consultants, Inc.

Melmore Laboratory
P.O. Box 76
Melmore, Ohio 44845

Telephone: (419) 397-2659

Client: CHEMICAL WASTE MANAGEMENT
ATEC Sample No.: 92-00097-MEL
Client Description: W-5-7
Date Received: 01/02/92
Date Extracted:
Date Analyzed: 01/09/92

Method: SW-846; 8240
Sample Type: SOIL
Percent Solids: 81.1
Analyst: JSM
Project No.: 643716

Compound	Concentration - mg/kg (ppm) dry wt
Acetone	< 0.100
Methyl Ethyl Ketone	< 0.100

CLOSURE REPORT FOR PUMP HOUSE, TANK CONTAINMENT AND SLUICE PIT CHEMICAL WASTE MANAGEMENT, INC. VICKERY, OHIO

Chemical Waste Management, Inc.
3956 State Road 412
Vickery, Ohio 43464

Attention: Mr. Michael F.R. Curry

Report No. 108967-1296-720

December 9, 1996

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122 S. St. Clair Street
P.O. Box 838
Toledo, OH 43697-0838
419-255-8200

419-255-7935 FAX

December 9, 1996

Chemical Waste Management, Inc.
3956 State Route 412
Vickery, Ohio 43464

Attention: Mr. Michael F.R. Curry

RE: Closure Report for Pump House, Tank Containment and Sluice Pit
Chemical Waste Management, Inc.
Vickery, Ohio
Report No. 108967-1296-720

Gentlemen:

Enclosed is our certification report for the above-referenced project. The purpose of our work was to provide an assessment of the decontamination of the pump house, tank containment and sluice pit at the Vickery, Ohio, facility. The work proceeded in accordance with Bowser-Morner quotation No. T-7455.

If we may be of further service, please contact us.

Respectfully submitted,

BOWSER-MORNER ASSOCIATES, INC.

William H. Schultz III

William H. Schultz III
Senior Consultant

WHS:sll
Attachment
4-Client

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BOWSER MORNER.

CLOSURE REPORT FOR PUMP HOUSE, TANK CONTAINMENT AND SLUICE PIT
CHEMICAL WASTE MANAGEMENT, INC., VICKERY, OHIO

I, J. Richard Hoppenjans, have assembled a team of qualified professionals to perform an assessment of the decontamination of the following structures at the Chemical Waste Management, Inc., Vickery, Ohio, facility:

- Pump House No. 2
- Concrete Containment for former FAT No. 2 tank
- Sluice Pit (concrete)

The decontamination contractor was Cousins Environmental Services (Cousins), Toledo, Ohio, and the laboratory performing sample analysis was Eagle Laboratories, Inc., (Eagle) in Wixom, Michigan.

My duties were to assess the decontamination of the final closure of the listed structures in accordance with 40 CFR 264.114; 264.115, 264.117 and 264.1102 as appropriate and in accordance with Appendix B of CWM's Decontamination Procedures and Appendix 6, Closure Plan.

HISTORY

Since each listed structure was no longer required to remain in service for the purpose originally intended, CWM decided to perform final closure for the pump house and tank containment, and to demolish the sluice pit under the sluice pit building.

AUTHORIZATION

Mr. Michael F.R. Curry of CWM issued Limited Services Agreement No. 96-7 dated August 2, 1996, to Bowser-Morner Associates, Inc., to perform field observations and to provide a closure report with certification.

CLOSURE WORK PERFORMED

Cousins began the decontamination process by utilizing a high-pressure stream of water and as needed added warm water and/or cleaning additives as indicated in the attached field service reports. Cousins collected rinseate samples, initiated a chain-of-custody and transported the samples, packed in ice to Eagle Laboratories.

Cousins collected the rinsewater by vacuum truck and handled it as a hazardous waste. The rinsewater was disposed of on-site in CWM's hazardous waste handling system.

Additional decontamination and resampling was performed by Cousins on each structure until the sample results from Eagle Laboratories indicated that the structure was successfully decontaminated. Refer to Attachment 1, Field Service Reports, documenting additional decontamination, and Attachment 2 for the sample test results. Exhibit 1 pictures show decontamination in process.

Upon the sluice pit being decontaminated, Cousins' subcontractor, Douglas Curry Excavating , Inc., of Toledo, Ohio, removed the small metal sluice pit building in one unit by using the existing lifting eyes and an excavator to expose the sluice pit.

The subcontractor, using a backhoe with an air hammer, demolished the concrete sluice pit and placed the broken concrete into three covered roll-offs, and placed the soil materials into one covered roll-off furnished by Cousins. Excess soil material from the excavation cavity was placed into a separate roll-off.

Cousins obtained soil samples from the floor and side walls of the excavation, initiated a chain-of-custody and transported the samples, packed in ice, to Eagle Laboratories.

Upon receipt of satisfactory test results, Cousins had the subcontractor backfill the excavation with soil material from roll-off No. 3029 and clean clay from CWM's borrow pit area. The three roll-offs containing broken concrete were transported to Evergreen Recycling and Disposal Facility. Refer to Attachment 5 for Evergreen waste tickets.

Bowser-Morner's field activity is documented in the attached field service reports and are briefly listed as follows:

DATE	ACTIVITY
July 23, 1996	Initial visit to observe site conditions, take pictures, collect field data and to obtain CWM decontamination procedures
August 12, 1996	Observed the decontamination of the pump house, tank containment and sluice pit, and the collection of samples
September 4, 1996	Observed the decontamination of the pump house, tank containment and sluice pit and the collection of samples
October 1, 1996	Observed the decontamination of the sluice pit and the collection of samples
October 25, 1996	Observed the demolition of the sluice pit and the handling of broken concrete and soil materials
October 28, 1996	Observed the removal of soils from the sluice pit excavation and the collection of samples

Refer to Exhibit 1 for pictures showing decontamination work in progress.

SUMMARY

I have reviewed the information in Attachment 1, Bowser-Morner Field Service Reports, Attachment 2, Eagle Laboratories, Inc., analysis of the various samples collected by Cousins, Attachment 3, CWM's Appendix B Decontamination Procedures, and Attachment 4, CWM's Closure Plan.

The structures to be closed in this report have been decontaminated in accordance with CWM's Appendix B, Decontamination Procedures; CWM's Appendix 6, Closure Plan; Code of Federal Regulations 40 CFR 264.114; 264.115, 264.197 and 264.1102. For location of the structures refer to Attachment 6, Site Plan.

Based upon my review of the information in the above documents, it is my opinion that the subject structures have been decontaminated for final closure.

CERTIFICATION

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Respectfully submitted,

BOWSER-MORNER ASSOCIATES, INC.

J. Richard Hoppenjans

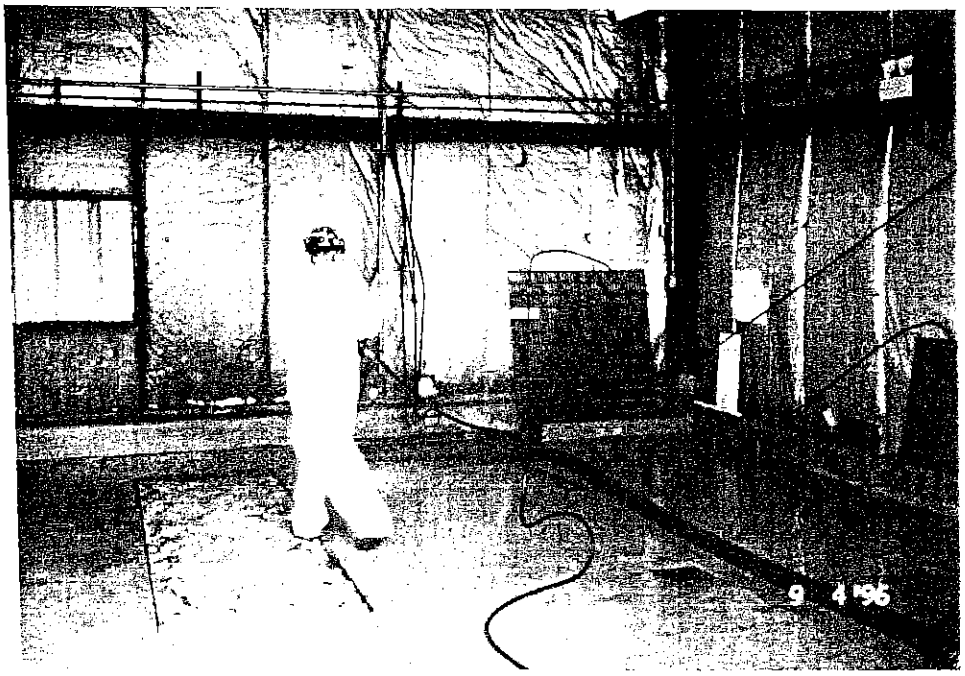
J. Richard Hoppenjans, P.E.
Chief District Engineer

STATE OF OHIO
J. RICHARD HOPPENJANS #36850
REGISTERED PROFESSIONAL ENGINEER

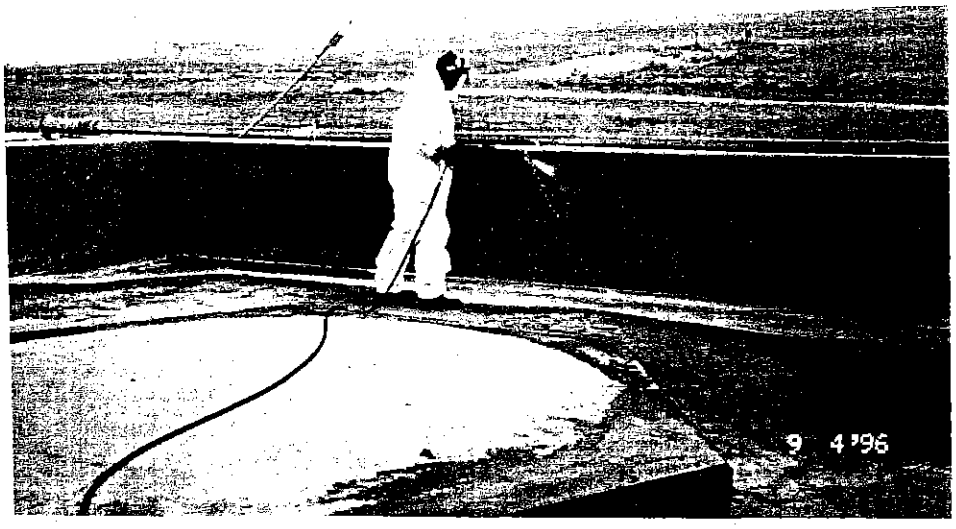
JRH:sll
Attachment
4-Client

BOWSER MORNER

EXHIBIT 1



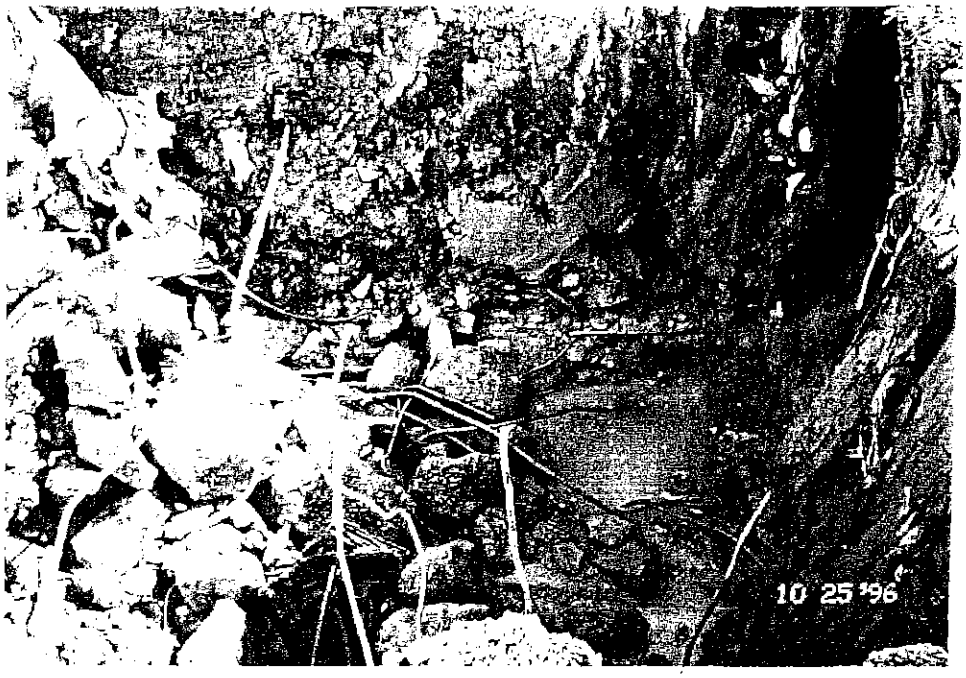
Pump House 2
Decontamination



Former fat 2 tank containment
Decontamination

BOWSER MORNER

EXHIBIT 1-continued



Sluice pit
Concrete demolition

Sluice pit excavation
Obtaining soil samples

BOWSER MORNER

ATTACHMENT 1

BOWSER-MORNER ASSOCIATES, INC.

FIELD SERVICE REPORTS

BOWSER MORNER.

BOWSER-MORNER

122 S. St. Clair Street • P.O. Box 838 • Toledo, Ohio 43697-0838
(419) 255-8200

Field Service Report

Client: Chemical Waste Management, Inc.
3956 State Route 412
Vickery, Ohio 43464
Attention: Mr. Michael F.R. Curry

DATE: October 28, 1996

TIME: 10:00 a.m.

Project: Closure Report for Pump House, Tank Containment and Sluice Pit

Laboratory No.: 108967 **Page:** 1 of 1

Bowser-Morner Representative: William H. Schultz III

Sluice Pit Sampling October 28, 1996

Cousins Environmental Services, Inc. (Cousins), is the contractor for decontamination of the containment for former FAT tank No. 2, the pump house No. 2, and the sluice pit. Cousins was represented on site by Mr. Bruce Hartzell, Project Manager. Mr. William Schultz arrived on-site and met with the Cousins' representative and Mr. Michael F.R. Curry of Chemical Waste Management, Inc. Cousins had subcontractor Douglas Curry Excavating, Inc., Toledo, Ohio, on site. Chemical Waste Management utilized their own vacuum truck and operator to remove a small amount of water from the excavation. The subcontractor used a 690 C John Deere excavator to remove loose soil material from the excavation bottom and side areas. This material was placed into a Cousins' covered roll-off No. 3029. The roll-off is stored on-site until the results of the soil sampling is known. Mr. Hartzell obtained grab and soil recovery probe samples from the excavation floor and wall areas and initiated a chain-of-custody record. Cousins packed the samples in ice and intends to transport the samples to Eagle Laboratories, in Wixom, Michigan, for analysis.

The project is on hold until sample results from Eagle Laboratories are known to determine the next course of action.

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EAGLE LABORATORIES INC. | 47930 West Road, Wixom, Michigan 48393

CHAIN-OF-CUSTODY RECORD
ANALYSIS REQUEST RECORD

EL Report No. _____

Phone: (810) 624-3090 • Fax: (810) 624-3095

CLIENT: Cousins Waste
ADDRESS: 1701 MATZINGER
PROJECT NO.:
PROJECT NAME: CWV-SP
PHONE NO.: 7261500
CLIENT CONTACT: B Haugen
SAMPLER: B Haugen

ITEM NO.	SAMPLE NUMBER	DATE	MATRIX	COMP	GRAB	SAMPLE DESCRIPTION	NUMBER OF CONTAINERS	TPH	TOTAL METALS	TOTAL CN	PCB	8260	8270					2 WEEK TAT	1 WEEK TAT	48 HR. RUSH	SPECIAL	LAB #
1		10/28/96	Soil	X		CW-SP-W COMP	4	X	X	X	X	X										
2		↓	↓	X		CW-SP-FN6	4	X	X	X	X	X										
3				X		CW-SP-FN12	4	X	X	X	X	X										
4				X		CW-SP-FS6	4	X	X	X	X	X										
5		✓	✓	X		CW-SP-FS12	4	X	X	X	X	X										
6																						
7																						
8																						
9																						
10																						

TRANS. NO.	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1					
2					
3					
4					

REMARKS

SAMPLER'S SIGNATURE:

WHITE COPY - ORIGINAL CANARY COPY - LAB PINK COPY - CLIENT

All change to chain of custody must be submitted by fax

EAGLE LABORATORIES INC. | 47930 West Road, Wixom, Michigan 48393

CHAIN-OF-CUSTODY RECORD
ANALYSIS REQUEST RECORD

EL Report No. _____

Phone: (810) 624-3090 • Fax: (810) 624-3095

CLIENT: Cousins Waste		ADDRESS: 1701 Malzgrover Toledo Ohio	
PROJECT NO.	PROJECT NAME: CWW-SP		PHONE NO.: 726 1500
CLIENT CONTACT: B Haugell		SAMPLER: B Haugell	

ITEM NO.	SAMPLE NUMBER	DATE	MATRIX	COMP	GRAB	SAMPLE DESCRIPTION	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)										2 WEEK TAT	1 WEEK TAT	48 HR. RUSH	SPECIAL	LAB #
1		10/28/16	Soil	X		CW-SP-EW	3															
2		↓	↓	X		CW-SP-SW	3															
3		↓	↓	X		CW-SP-WW	3															
4		↓	↓	X		CW-SP-NW	3															
5																						
6																						
7																						
8																						
9																						
10																						

TRANS. NO.	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1					
2					
3					
4					

REMARKS

SAMPLER'S SIGNATURE:

WHITE COPY - ORIGINAL CANARY COPY - LAB PINK COPY - CLIENT

BOWSER-MORNER

122 S. St. Clair Street • P.O. Box 838 • Toledo, Ohio 43697-0838
(419) 255-8200

Field Service Report

Client: Chemical Waste Management, Inc.
3956 State Route 412
Vickery, Ohio 43464
Attention: Mr. Michael F.R. Curry

DATE: October 25, 1996

TIME: 12:00 p.m.

Project: Closure Report for Pump House, Tank Containment and Sluice Pit

Laboratory No.: 108967 **Page:** 1 of 1

Bowser-Morner Representative: William H. Schultz III

Sluice Pit Demolition and Sampling October 25, 1996

Cousins Environmental Services, Inc. (Cousins), is the contractor for decontamination of the containment for former FAT tank No. 2, the pump house No. 2, and the sluice pit. Cousins was represented on site by Mr. Bruce Hartzell, Project Manager. Mr. William Schultz arrived on-site and met with the Cousins' representative. Cousins had subcontractor Douglas Curry Excavating Inc., Toledo, Ohio, on site. The subcontractor had removed the metal building from over the sluice pit and set in an area designated by CWM. Cousins had on-site one vacuum truck and three covered roll-offs No. 3024, 3025 and 3027 to contain the sluice pit demolition material. The subcontractor had a 690 C John Deere excavator and a John Deere backhoe with air hammer. The concrete demolition was going slower than anticipated due to thicker concrete walls with larger and closer spacing of reinforcing steel than anticipated. The demolition material was placed into the three-covered roll-offs and will be retained on-site until disposition is determined.

Since it was evident that the concrete removal would take longer than anticipated, the soil sampling was postponed until October 28, 1996.

Mr. David Schilt of the Ohio EPA was present part time.

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BOWSER-MORNER

122 S. St. Clair Street • P.O. Box 838 • Toledo, Ohio 43697-0838
(419) 255-8200

Field Service Report

Client: Chemical Waste Management, Inc.
3956 State Route 412
Vickery, Ohio 43464
Attention: Mr. Michael F.R. Curry

DATE: October 1, 1996

TIME: 8:30 a.m.

Project: Closure Report for Pump House, Tank Containment and Sluice Pit

Laboratory No.: 108967 **Page:** 1 of 1

Bowser-Morner Representative: William H. Schultz III

Additional Decontamination and Resample October 1, 1996

Cousins Environmental Services, Inc. (Cousins), is the contractor for decontamination of the containment for former FAT tank No. 2, the pump house No. 2, and the sluice pit. Cousins was represented on site by Mr. Bruce Hartzell, Project Manager. Mr. William Schultz arrived on-site and met with the Cousins' representative and Mr. Michael F.R. Curry of Chemical Waste Management, Inc. Cousins had the following personnel on site: one project manager, one operator and two laborers. Cousins triple-rinsed the concrete sluice pit area utilizing a high-pressure stream of water with a caustic solution for the first and second rinse followed by a final rinse with high pressure stream of water. A rinseate sample was collected and a chain-of-custody record was initiated by Cousins. Cousins packed the sample in ice and intends to transport the samples to Eagle Laboratories, in Wixom, Michigan, for analysis. Cousins had vacuumed approximately 185 gallons of rinseate into their vac truck, which was weighed on CWM scales. CWM determined the pH at 10 with about zero percent solids. The tanker contents was accepted by CWM into their waste system for subsequent deep-well injection. The tanker was then weighed prior to leaving the site.

Mr. David Schilt of the Ohio EPA observed the sampling.

The project is on hold until sample results from Eagle Laboratories are known to determine the next course of action.

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EAGLE LABORATORIES INC.
47930 West Road
Wixom, Michigan
48393

CHAIN-OF-CUSTODY RECORD
ANALYSIS REQUEST RECORD

EL Report No. _____

Phone: (810) 624-3090 • Fax: (810) 624-3095

CLIENT: Cousins Waste Control	ADDRESS: 1701 Matzinger, Toledo, Ohio
PROJECT NO.	PROJECT NAME: Chem Waste Vickery
PHONE NO.: 726-1500	
CLIENT CONTACT: Bruce Hartzell	SAMPLER

ITEM NO.	SAMPLE NUMBER	DATE	MATRIX	COMP	GRAB	SAMPLE DESCRIPTION	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)													LAB #
								TOTAL CR									2 WEEK TAT	1 WEEK TAT	48 HR. RUSH	SPECIAL	
1		10/1/96	WATER		X	CWV-33	1	X													
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

TRANS. NO.	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1					
2					
3					
4					

REMARKS

SAMPLER'S SIGNATURE:

WHITE COPY - ORIGINAL CANARY COPY - LAB PINK COPY - CLIENT

BOWSER-MORNER
122 S. St. Clair Street • P.O. Box 838 • Toledo, Ohio 43697-0838
(419) 255-8200

Field Service Report

Client: Chemical Waste Management, Inc.
3956 State Route 412
Vickery, Ohio 43464
Attention: Mr. Michael F.R. Curry

DATE: September 4, 1996

TIME: 8:00 a.m.

Project: Closure Report for Pump House, Tank Containment and Sluice Pit

Laboratory No.: 108967 **Page:** 1 of 1

Bowser-Morner Representative: William H. Schultz III

Additional Decontamination and Resample September 4, 1996

Cousins Environmental Services, Inc. (Cousins), is the contractor for decontamination of the containment for former FAT tank No. 2, the pump house No. 2, and the sluice pit. Cousins was represented on site by Mr. Dave Menard, Field Supervisor and Mr. Bruce Hartzell, Project Manager. Mr. William Schultz arrived on site and met with the Cousins' representatives and Mr. Michael F.R. Curry of Chemical Waste Management, Inc. Cousins had the following personnel on site: one project manager, one field supervisor, one operator and two laborers. Cousins triple-rinsed the concrete containment, the pump house No. 2, and the sluice pit area utilizing a detergent with a high-pressure stream of water followed by a caustic solution with a hot water rinse and a final rinse with high pressure stream of water. Rinseate samples of each structure were collected and a chain-of-custody record was initiated by Cousins. Cousins packed the samples in ice and intends to transport the samples to Eagle Laboratories, in Wixom, Michigan, for analysis. Cousins had vacuumed approximately 350 gallons of rinseate into their semi-tanker, which was weighed on CWM scales. CWM determined the pH at 4 with about 0 percent solids. The tanker contents was accepted by CWM into their waste system for subsequent deep-well injection. The tanker was then weighed prior to leaving the site.

Mr. David Schilt of the Ohio EPA observed the sampling at each location

The project is on hold until sample results from Eagle Laboratories are known to determine the next course of action.

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EAGLE LABORATORIES INC.
47930 West Road
Wixom, Michigan
48393

CHAIN-OF-CUSTODY RECORD
ANALYSIS REQUEST RECORD

EL Report No. _____

Phone: (810) 624-3090 • Fax: (810) 624-3095

CLIENT: Cousins Waste Control
ADDRESS: 1701 Matzinger, Toledo, Ohio
PROJECT NO.:
PROJECT NAME: Chem Waste Vickery
PHONE NO.: 726-1500
CLIENT CONTACT: B. Hartzell
SAMPLER: Bruce Hartzell

ITEM NO.	SAMPLE NUMBER	DATE	MATRIX	COMP	GRAB	SAMPLE DESCRIPTION	NUMBER OF CONTAINERS		TOTAL METALS	TOTAL CN	PCB	8260	8270					2 WEEK TAT	1 WEEK TAT	48 HR. RUSH	SPECIAL	LAB #
1		9/4/96	Water		X	CWV-21	6		X	X	X	X	X									
2		↓	↓		X	CWV-22	6		X	X	X	X	X									
3		↓	↓		X	CWV-23	6		X	X	X	X	X									
4		↓	↓		X	CWV-24	6		X	X	X	X	X									
5																						
6																						
7																						
8																						
9																						
10																						

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)

TRANS. NO.	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1					
2					
3					
4					

REMARKS

SAMPLER'S SIGNATURE:

WHITE COPY - ORIGINAL CANARY COPY - LAB PINK COPY - CLIENT

BOWSER-MORNER

122 S. St. Clair Street • P.O. Box 838 • Toledo, Ohio 43697-0838
(419) 255-8200

Field Service Report

Client: Chemical Waste Management, Inc.
3956 State Route 412
Vickery, Ohio 43464
Attention: Mr. Michael F.R. Curry

DATE: August 12, 1996

TIME: 12:09 p.m.

Project: Closure Report for Pump House, Tank Containment and Sluice Pit

Laboratory No.: 108967 **Page:** 1 of 1

Bowser-Morner Representative: William H. Schultz III

Cousins Environmental Services, Inc. (Cousins), is the contractor for decontamination of the pump house No. 2, the adjacent containment for former FAT tank No. 2 and the sluice pit. Cousins was represented on site by Mr. Joe Helminak, Field Supervisor and Mr. Bruce Hartzell, Project Manager. Mr. William Schultz arrived on site and met with the Cousins' representatives, Mr. David Schilt of the Ohio EPA and Mr. Michael F.R. Curry of Chemical Waste Management, Inc. Cousins had the following personnel on site: one project manager, one field supervisor, one operator and two laborers. Cousins triple-rinsed pump house No. 2, the adjacent concrete containment and the sluice pit building and pit area utilizing a high-pressure stream of water. Rinseate samples of each structure were collected and a chain-of-custody record was initiated by Cousins. Cousins packed the samples in ice and intends to transport the samples to Eagle Laboratories for analysis. Cousins had vacuumed approximately 1000 gallons of rinseate into their semi-tanker, which was weighed on CWM scales. CWM determined the pH at 7 with about 6 percent solids. The tanker contents was accepted by CWM into their waste system for subsequent deep-well injection. The tanker was then weighed prior to leaving the site.

The project is on hold until sample results from Eagle Laboratories are known to determine the next course of action.

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Chemical Waste Management, Inc.
3956 State Rt. 412
Vickery, Ohio 43464
419/547-7791

CHAIN-OF-CUSTODY RECORD

Generator's Name Chemical Waste Managment Telephone (419) 547-7791
Address 3956 State Rt 412 (street) Vickery (city) Ohio (state) 43464 (zip)
Company Name Cousins Waste Control Telephone (419) 726 1500
Address 1701 Matzinger (street) Toledo (city) Ohio (state) 43612 (zip)

SAMPLE/POINT/I.D./ DESCRIPTION	DATE SAMPLED	TIME	NUMBER OF CONTAINERS	COMMENTS ANALYSIS REQUIRED
CWV-2	8-12-96	12:00	5	METALS, PCB, CN, 601/602
CWV-3	8-12-96	2:00	5	METALS PCB, CN, 601/602
CWV-1	8-12-96	10:00	2	METALS PCB CN 601/602

CHAIN OF POSSESSION

Relinquished By:[1] Organization/Individual (Signature)	Date[2]	Received By: Organization/Individual (Signature)	Date[2]
1. Bruce Hansell	8/12/96		
2.			
3.			
4.			
5.			

NOTE:
1. First "Relinquished by" signature shall be that of the sampler.
2. Apparent gaps or breaks in the inclusive dates in the "Chain of Possession" Section are covered by the site receiving/shipping logs.

BOWSER-MORNER

122 S. St. Clair Street • P.O. Box 838 • Toledo, Ohio 43697-0838
(419) 255-8200

Field Service Report

Client: Chemical Waste Management, Inc.
3956 State Route 412
Vickery, Ohio 43464
Attention: Mr. Michael F.R. Curry

DATE: July 23, 1996

TIME: 9:45 p.m.

Project: Closure Report for Pump House, Tank Containment and Sluice Pit

Laboratory No.: 108967 **Page:** 1 of 1

Bowser-Morner Representative: William H. Schultz III

INITIAL SITE VISIT

Mr. William H. Schultz III arrived on-site and met with Mr. Michael F.R. Curry of Chemical Waste Management, Inc. Mr. Curry took Mr. Schultz to each structure and explained the general scope-of-work to be completed by the contractor, Cousins Environmental Services, Inc. (Cousins). Mr. Schultz took pictures of the structures, obtained field dimension and observed site conditions. Mr. Schultz obtained a copy of Chemical Waste Management (CWM) decontamination procedures and the name Mr. Bruce Hartzell as the contact person at Cousins.

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ATTACHMENT 2

EAGLE LABORATORIES, INC.

SAMPLE ANALYSIS

BOWSER MORNER.

EAGLE LABORATORIES INC.

47930 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

Date: 11/01/96

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49133

Sample Description: CW-SP-FN6

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Total Cyanide	Not det	mg/Kg	0.2	SW846 9010	11/01/96	MMC
Analysis						
ARO 1016	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1221	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1232	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1242	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1248	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1254	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1260	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
Extraction	NA			SW846 3550	10/30/96	GCG
Metals Analysis						
Total Arsenic	16	mg/Kg	0.10	SW846 7061	11/01/96	CAG
Total Barium	110	mg/Kg	1.0	SW846 6010	10/30/96	CAG
Total Cadmium	0.29	mg/Kg	0.05	SW846 7131	10/30/96	CAG
Total Chromium	20	mg/Kg	2.0	SW846 6010	10/30/96	CAG
Total Copper	21	mg/Kg	1.0	SW846 6010	10/30/96	CAG
Total Lead	9.5	mg/Kg	1.0	SW846 7420	10/31/96	CAG
Total Mercury	Not det	mg/Kg	0.1	SW846 7471	10/31/96	CAG
Total Selenium	Not det	mg/Kg	0.5	SW846 7741	10/30/96	CAG
Total Silver	Not det	mg/Kg	0.5	SW846 7760	10/30/96	CAG
Total Zinc	74	mg/Kg	1.0	SW846 6010	10/30/96	CAG
Volatile Analysis						
[illegible]ne	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Benzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromochloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromodichloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromoform	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
2-Butanone (MEK)	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM

P ect Name: CWV-SP
ction Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49133

Sample Description: CW-SP-FN6

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Carbon Disulfide	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Carbon Tetrachloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chlorodibromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloroform	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dibromo-3-chloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dibromoethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Dibromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Dichlorodifluoromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1-Dichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
chloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
cis-1,2-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
trans-1,2-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dichloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,3-Dichloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
cis-1,3-Dichloropropene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
trans-1,3-Dichloropropene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Ethyl benzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
2-Hexanone	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
4-Methyl-2-Pentanone (MIBK)	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Methylene Chloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Styrene	31	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,2-Tetrachloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2,2-Tetrachloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Tetrachloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Toluene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,1-Trichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,2-Trichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Trichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Trichlorofluoromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Vinyl Chloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Total Xylenes	Not det	ug/Kg	30	SW846 8260	10/29/96	GTM
1,4-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,3 chlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2 chlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
MTBE	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Ethyl Acetate	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
n-Butyl Alcohol	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Ethoxyethanol	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
ethanol	Not det	ug/Kg	800	SW846 8260	10/29/96	GTM

EAGLE

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49133

Sample Description: CW-SP-FN6

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Semi-Volatile Analysis						
Acenaphthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Acenaphthylene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzidine	Not det	ug/Kg	5000	SW846 8270	10/30/96	GTM
Benzoic acid	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Benzo(a)anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(b)fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(k)fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(g,h,i)perylene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(a)pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzyl alcohol	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
Bis(2-chloroethoxy)methane	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-chloroethyl)ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-chloroisopropyl)ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-ethylhexyl)phthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Bromophenyl phenyl ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Butyl benzyl phthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chloroaniline	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2-Chloronaphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chloro-3-methylphenol	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2-Chlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chlorophenylphenyl ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Chrysene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dibenzo(a,h)anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dibenzofuran	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Di-n-butylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,3-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,4-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,2-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
3,3'-Dichlorobenzidine	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2,4-Dichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,6-Dichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Diethylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4-Dimethylphenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dimethylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4,6-Dinitro-2-methylphenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
2,4-Dinitrophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4-Dinitrotoluene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,6-Dinitrotoluene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Di-n-octylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM

EAGLE

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49133

Sample Description: CW-SP-FN6

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Fluorene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorobutadiene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorocyclopentadiene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachloroethane	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Indeno(1,2,3)pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Isophorone	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Methylnaphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Methylphenol (o-Cresol)	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Methylphenol (p-Cresol)	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Naphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
3-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
4-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Nitrobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
itrophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
-Nitrosodiphenylamine	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
N-Nitrosodipropylamine	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pentachlorophenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Phenanthrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Phenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4,5-Trichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4,6-Trichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Nitrophenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
1,2,4-Trichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pyridene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM

Not det: Not detected above the MDL

Reviewed by J. Kenyon

Date 11/5/96

EAGLE LABORATORIES INC

EAGLE LABORATORIES INC

47930 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

Date: 11/01/96

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49134

Sample Description: CW-SP-FN12

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Total Cyanide	Not det	mg/Kg	0.2	SW846 9010	11/01/96	MMC
CB Analysis						
ARO 1016	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1221	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1232	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1242	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1248	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1254	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1260	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
Extraction	NA			SW846 3550	10/30/96	GCG
Metals Analysis						
Total Arsenic	14 ✓	mg/Kg	0.10	SW846 7061	11/01/96	CAG
Total Barium	87 ✓	mg/Kg	1.0	SW846 6010	10/30/96	CAG
Total Cadmium	0.19 ✓	mg/Kg	0.05	SW846 7131	10/30/96	CAG
Total Chromium	19 ✓	mg/Kg	2.0	SW846 6010	10/30/96	CAG
Total Copper	17	mg/Kg	1.0	SW846 6010	10/30/96	CAG
Total Lead	8.9 ✓	mg/Kg	1.0	SW846 7420	10/31/96	CAG
Total Mercury	Not det	mg/Kg	0.1	SW846 7471	10/31/96	CAG
Total Selenium	Not det	mg/Kg	0.5	SW846 7741	10/30/96	CAG
Total Silver	Not det	mg/Kg	0.5	SW846 7760	10/30/96	CAG
Total Zinc	74	mg/Kg	1.0	SW846 6010	10/30/96	CAG
Volatile Analysis						
Acetone	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
enzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromochloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromodichloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromoform	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
2-Butanone (MEK)	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM

EAGLE LABORATORIES

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49134

Sample Description: CW-SP-FN12

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Carbon Disulfide	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Carbon Tetrachloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chlorodibromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloroform	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dibromo-3-chloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dibromoethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Dibromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Dichlorodifluoromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1-Dichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
2-Dichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
,1-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
cis-1,2-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
trans-1,2-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dichloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,3-Dichloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
cis-1,3-Dichloropropene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
trans-1,3-Dichloropropene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Ethyl benzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
2-Hexanone	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
4-Methyl-2-Pentanone (MIBK)	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Methylene Chloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Styrene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,1,2-Tetrachloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,2,2-Tetrachloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Tetrachloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Toluene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,1-Trichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,2-Trichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Trichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Trichlorofluoromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Vinyl Chloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Total Xylenes	Not det	ug/Kg	30	SW846 8260	10/29/96	GTM
1,4-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,3-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
,2-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
MTBE	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Ethyl Acetate	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
n-Butyl Alcohol	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
2-Ethoxyethanol	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Methanol	Not det	ug/Kg	800	SW846 8260	10/29/96	GTM

EAGLE

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49134

Sample Description: CW-SP-FN12

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Semi-Volatile Analysis						
Acenaphthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Acenaphthylene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzidine	Not det	ug/Kg	5000	SW846 8270	10/30/96	GTM
Benzoic acid	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Benzo(a)anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(b)fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(k)fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(g,h,i)perylene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(a)pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzyl alcohol	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
Bis(2-chloroethoxy)methane	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-chloroethyl)ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-chloroisopropyl)ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-ethylhexyl)phthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Bromophenyl phenyl ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Butyl benzyl phthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chloroaniline	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2-Chloronaphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chloro-3-methylphenol	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2-Chlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chlorophenylphenyl ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Chrysene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dibenzo(a,h)anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dibenzofuran	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Di-n-butylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,3-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,4-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,2-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
3,3'-Dichlorobenzidine	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2,4-Dichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,6-Dichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Diethylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4-Dimethylphenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dimethylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4,6-Dinitro-2-methylphenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
2,4-Dinitrophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4-Dinitrotoluene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,6-Dinitrotoluene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Di-n-octylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM

EAGLE

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49134

ıple Description: CW-SP-FN12

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Fluorene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorobutadiene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorocyclopentadiene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachloroethane	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Indeno(1,2,3)pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Isophorone	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Methylnaphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Methylphenol (o-Cresol)	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Methylphenol (p-Cresol)	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Naphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
3-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
4-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Nitrobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
rophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
N-Nitrosodiphenylamine	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
N-Nitrosodipropylamine	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pentachlorophenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Phenanthrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Phenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4,5-Trichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4,6-Trichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Nitrophenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
1,2,4-Trichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pyridene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM

Not det: Not detected above the MDL

Reviewed by

Date 11/5/96

EAGLE LABORATORIES INC

EAGLE LABORATORIES INC.

47930 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

Date: 11/01/96

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49135

Sample Description: CW-SP-FS6

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Total Cyanide	Not det	mg/Kg	0.2	SW846 9010	11/01/96	MMC
CB Analysis						
ARO 1016	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1221	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1232	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1242	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1248	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1254	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1260	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
Extraction	NA			SW846 3550	10/30/96	GCG
Metals Analysis						
Total Arsenic	12	mg/Kg	0.10	SW846 7061	11/01/96	CAG
Total Barium	90	mg/Kg	1.0	SW846 6010	10/30/96	CAG
Total Cadmium	0.18	mg/Kg	0.05	SW846 7131	10/30/96	CAG
Total Chromium	11	mg/Kg	2.0	SW846 6010	10/30/96	CAG
Total Copper	9.5	mg/Kg	1.0	SW846 6010	10/30/96	CAG
Total Lead	5.5	mg/Kg	1.0	SW846 7420	10/31/96	CAG
Total Mercury	Not det	mg/Kg	0.1	SW846 7471	10/31/96	CAG
Total Selenium	Not det	mg/Kg	0.5	SW846 7741	10/30/96	CAG
Total Silver	Not det	mg/Kg	0.5	SW846 7760	10/30/96	CAG
Total Zinc	42	mg/Kg	1.0	SW846 6010	10/30/96	CAG
Volatile Analysis						
Acetone	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Benzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromochloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromodichloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromoform	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
2-Butanone (MEK)	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM

EAGLE

ject Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49135

Sample Description: CW-SP-FS6

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Carbon Disulfide	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Carbon Tetrachloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chlorodibromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloroform	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dibromo-3-chloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dibromoethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Dibromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Dichlorodifluoromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1-Dichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
-1,2-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
trans-1,2-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dichloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,3-Dichloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
cis-1,3-Dichloropropene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
trans-1,3-Dichloropropene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Ethyl benzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
2-Hexanone	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
4-Methyl-2-Pentanone (MIBK)	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Methylene Chloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Styrene	210	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,1,2-Tetrachloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,2,2-Tetrachloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Tetrachloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Toluene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,1-Trichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,2-Trichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Trichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Trichlorofluoromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Vinyl Chloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Total Xylenes	Not det	ug/Kg	30	SW846 8260	10/29/96	GTM
1,4-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,3-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
MTBE	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Ethyl Acetate	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
n-Butyl Alcohol	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
2-Ethoxyethanol	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Methanol	Not det	ug/Kg	800	SW846 8260	10/29/96	GTM

EAGLE

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49135

Sample Description: CW-SP-FS6

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Semi-Volatile Analysis						
Acenaphthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Acenaphthylene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzidine	Not det	ug/Kg	5000	SW846 8270	10/30/96	GTM
Benzoic acid	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Benzo(a)anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(b)fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(k)fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(g,h,i)perylene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(a)pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzyl alcohol	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
is(2-chloroethoxy)methane	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-chloroethyl)ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-chloroisopropyl)ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-ethylhexyl)phthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Bromophenyl phenyl ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Butyl benzyl phthalate	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
4-Chloroaniline	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Chloronaphthalene	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
4-Chloro-3-methylphenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Chlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chlorophenylphenyl ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Chrysene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dibenzo(a,h)anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dibenzofuran	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Di-n-butylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,3-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,4-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,2-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
3,3'-Dichlorobenzidine	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2,4-Dichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,6-Dichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Diethylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4-Dimethylphenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dimethylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4,6-Dinitro-2-methylphenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
2,4-Dinitrophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4-Dinitrotoluene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,6-Dinitrotoluene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Di-n-octylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM

EAGLE Laboratories

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49135

ple Description: CW-SP-FS6

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Fluorene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorobutadiene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorocyclopentadiene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachloroethane	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Indeno(1,2,3)pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Isophorone	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Methylnaphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Methylphenol (o-Cresol)	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Methylphenol (p-Cresol)	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Naphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
3-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
4-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
robenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Nitrophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
N-Nitrosodiphenylamine	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
N-Nitrosodipropylamine	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pentachlorophenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Phenanthrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Phenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4,5-Trichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4,6-Trichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Nitrophenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
1,2,4-Trichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pyridene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM

Not det: Not detected above the MDL

Reviewed by J. Kenyon

Date 11/5/96

EAGLE LABORATORIES INC.

EAGLE LABORATORIES INC.

47930 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

Date: 11/01/96

Eagle Report Number: 11711
Eagle Sample ID: EL49136

Project Name: CWV-SP
Collection Date: 10/28/96

Sample Description: CW-SP-FS12

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Total Cyanide	Not det	mg/Kg	0.2	SW846 9010	11/01/96	MMC
PCB Analysis						
ARO 1016	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1221	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1232	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1242	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1248	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1254	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1260	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
Extraction	NA			SW846 3550	10/30/96	OCO
Metals Analysis						
Total Arsenic	18	mg/Kg	0.10	SW846 7061	11/01/96	CAO
Total Barium	93	mg/Kg	1.0	SW846 6010	10/30/96	CAO
Total Cadmium	0.22	mg/Kg	0.05	SW846 7131	10/30/96	CAO
Total Chromium	24	mg/Kg	2.0	SW846 6010	10/30/96	CAO
Total Copper	25	mg/Kg	1.0	SW846 6010	10/30/96	CAO
Total Lead	11	mg/Kg	1.0	SW846 7420	10/31/96	CAO
Total Mercury	Not det	mg/Kg	0.1	SW846 7471	10/31/96	CAO
Total Selenium	Not det	mg/Kg	0.5	SW846 7741	10/30/96	CAO
Total Silver	Not det	mg/Kg	0.5	SW846 7760	10/30/96	CAO
Total Zinc	86	mg/Kg	1.0	SW846 6010	10/30/96	CAO
Volatile Analysis						
Acetone	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Benzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromochloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromodichloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromoform	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
2-Butanone (MEK)	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM

EAGLE Laboratories Inc.

ect Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49136

Sample Description: CW-SP-FS12

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Carbon Disulfide	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Carbon Tetrachloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chlorodibromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloroform	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dibromo-3-chloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dibromoethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Dibromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Dichlorodifluoromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1-Dichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dichloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
cis-1,2-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
trans-1,2-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dichloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,3-Dichloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
cis-1,3-Dichloropropene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
trans-1,3-Dichloropropene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Ethyl benzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
2-Hexanone	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
4-Methyl-2-Pentanone (MIBK)	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Methylene Chloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Styrene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,1,2-Tetrachloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,2,2-Tetrachloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Tetrachloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Toluene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,1-Trichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,2-Trichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Trichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Trichlorofluoromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Vinyl Chloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Total Xylenes	Not det	ug/Kg	30	SW846 8260	10/29/96	GTM
1,4-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,3-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
MTBE	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Ethyl Acetate	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
n-Butyl Alcohol	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
2-Ethoxyethanol	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Methanol	Not det	ug/Kg	800			

EAGLE

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49136

Sample Description: CW-SP-FS12

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Semi-Volatile Analysis						
Acenaphthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Acenaphthylene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzidine	Not det	ug/Kg	5000	SW846 8270	10/30/96	GTM
Benzoic acid	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Benzo(a)anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(b)fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(k)fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(g,h,i)perylene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(a)pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzyl alcohol	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
Bis(2-chloroethoxy)methane	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-chloroethyl)ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-chloroisopropyl)ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-ethylhexyl)phthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Bromophenyl phenyl ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Butyl benzyl phthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chloroaniline	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2-Chloronaphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chloro-3-methylphenol	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2-Chlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chlorophenylphenyl ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Chrysene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dibenzo(a,h)anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dibenzofuran	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Di-n-butylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,3-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,4-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,2-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
3,3'-Dichlorobenzidine	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2,4-Dichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,6-Dichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Diethylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4-Dimethylphenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dimethylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4,6-Dinitro-2-methylphenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
2,4-Dinitrophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4-Dinitrotoluene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,6-Dinitrotoluene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Di-n-octylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM

EAGLE

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: [illegible]
Eagle Sample ID: EL49136

le Description: CW-SP-FS12

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Fluorene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorobutadiene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorocyclopentadiene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachloroethane	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Indeno(1,2,3)pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Isophorone	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Methylnaphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Methylphenol (o-Cresol)	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Methylphenol (p-Cresol)	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Naphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
3-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
4-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
''robenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
itrophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
N-Nitrosodiphenylamine	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
N-Nitrosodipropylamine	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pentachlorophenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Phenanthrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Phenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4,5-Trichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4,6-Trichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Nitrophenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
1,2,4-Trichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pyridene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM

Not det: Not detected above the MDL

Reviewed by J. Henyon

Date 11/5/96

EAGLE LABORATORIES INC.

EAGLE LABORATORIES INC.

47930 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

Date: 11/01/96

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49132

Sample Description: CW-SP-W COMPOSITE

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Total Cyanide	Not det	mg/Kg	0.2	SW846 9010	11/01/96	MMC
PCB Analysis						
ARO 1016	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1221	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1232	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1242	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1248	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1254	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
ARO 1260	Not det	mg/Kg	0.33	SW846 8080	10/30/96	TED
Extraction	NA			SW846 3550	10/30/96	GCG
Metals Analysis						
Total Arsenic	11 ✓ 5.0	mg/Kg	0.10	SW846 7061	11/01/96	CAG
Total Barium	76 ✓ 1000	mg/Kg	1.0	SW846 6010	10/30/96	CAG
Total Cadmium	0.16 ✓ 0.5	mg/Kg	0.05	SW846 7131	10/30/96	CAG
Total Chromium	19 ✓ 5.0	mg/Kg	2.0	SW846 6010	10/30/96	CAG
Total Copper	20	mg/Kg	1.0	SW846 6010	10/30/96	CAG
Total Lead	10 ✓ 5.0	mg/Kg	1.0	SW846 7420	10/31/96	CAG
Total Mercury	Not det 0.2	mg/Kg	0.1	SW846 7471	10/31/96	CAG
Total Selenium	Not det 1.0	mg/Kg	0.5	SW846 7741	10/30/96	CAG
Total Silver	Not det 5.0	mg/Kg	0.5	SW846 7760	10/30/96	CAG
Total Zinc	78	mg/Kg	1.0	SW846 6010	10/30/96	CAG
Volatile Analysis						
Acetone	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Benzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromochloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromodichloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromoform	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Bromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
2-Butanone (MEK)	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM

EAGLE

P[illegible]ct Name: CWV-SP
[illegible]ction Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49132

Sample Description: CW-SP-W COMPOSITE

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Carbon Disulfide	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Carbon Tetrachloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chlorodibromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloroform	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Chloromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dibromo-3-chloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dibromoethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Dibromomethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Dichlorodifluoromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1-Dichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
[illegible]-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
trans-1,2-Dichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dichloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,3-Dichloropropane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
cis-1,3-Dichloropropene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
trans-1,3-Dichloropropene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Ethyl benzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
2-Hexanone	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
4-Methyl-2-Pentanone (MIBK)	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Methylene Chloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Styrene	12	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,1,2-Tetrachloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,2,2-Tetrachloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Tetrachloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Toluene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,1-Trichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,1,2-Trichloroethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Trichloroethene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Trichlorofluoromethane	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Vinyl Chloride	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
Total Xylenes	Not det	ug/Kg	30	SW846 8260	10/29/96	GTM
1,4-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,3-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
1,2-Dichlorobenzene	Not det	ug/Kg	10	SW846 8260	10/29/96	GTM
[illegible]	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Ethyl Acetate	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
n-Butyl Alcohol	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
2-Ethoxyethanol	Not det	ug/Kg	100	SW846 8260	10/29/96	GTM
Methanol	Not det	ug/Kg	800	SW846 8260	10/29/96	GTM

EAGLE

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49132

Sample Description: CW-SP-W COMPOSITE

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Semi-Volatile Analysis						
Acenaphthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Acenaphthylene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzidine	Not det	ug/Kg	5000	SW846 8270	10/30/96	GTM
Benzoic acid	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Benzo(a)anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(b)fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(k)fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(g,h,i)perylene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzo(a)pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Benzyl alcohol	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
Bis(2-chloroethoxy)methane	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
[illegible]-chloroethyl)ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
[illegible]2-chloroisopropyl)ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Bis(2-ethylhexyl)phthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Bromophenyl phenyl ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Butyl benzyl phthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chloroaniline	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2-Chloronaphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chloro-3-methylphenol	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2-Chlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Chlorophenylphenyl ether	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Chrysene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dibenzo(a,h)anthracene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dibenzofuran	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Di-n-butylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,3-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,4-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
1,2-Dichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
3,3'-Dichlorobenzidine	Not det	ug/Kg	660	SW846 8270	10/30/96	GTM
2,4-Dichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,6-Dichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Diethylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4-Dimethylphenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Dimethylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4,6-Dinitro-2-methylphenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
[illegible] Dinitrophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
[illegible] Dinitrotoluene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,6-Dinitrotoluene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Di-n-octylphthalate	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Fluoranthene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM

EAGLE

Project Name: CWV-SP
Collection Date: 10/28/96

Eagle Report Number: 11711
Eagle Sample ID: EL49132

ıple Description: CW-SP-W COMPOSITE

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Fluorene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorobutadiene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachlorocyclopentadiene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Hexachloroethane	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Indeno(1,2,3)pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Isophorone	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Methylnaphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Methylphenol (o-Cresol)	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Methylphenol (p-Cresol)	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Naphthalene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
3-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
4-Nitroaniline	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Nitrobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Nitrophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
N-Nitrosodiphenylamine	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
N-Nitrosodipropylamine	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pentachlorophenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
Phenanthrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Phenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pyrene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4,5-Trichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
2,4,6-Trichlorophenol	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
4-Nitrophenol	Not det	ug/Kg	1700	SW846 8270	10/30/96	GTM
1,2,4-Trichlorobenzene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM
Pyridene	Not det	ug/Kg	330	SW846 8270	10/30/96	GTM

Not det: Not detected above the MDL

Reviewed by J. A. Kenyon

Date 11/5/96

EAGLE LABORATORIES INC

EAGLE LABORATORIES INC.

47930 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

Date: 10/03/96

Project Name: Chem Waste Vickery
Collection Date: 10/01/96

Eagle Report Number: 11434
Eagle Sample ID: EL47892

Sample Description: 10/01/96 CWV-33

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Total Chromium	Not det	mg/L	0.05	EPA 200.7	10/02/96	CAG
Digest	NA				10/02/96	SAP

Not det: Not detected above the MDL

Reviewed by

Date 10/8/96

Cousins
Waste Control • Environmental Services • Dust Control
PROVIDING QUALITY SERVICES SINCE 1971
1001 Matzinger Road
Toledo, Ohio 43612
(419) 726-1500 • (800) 133-5751

SALES FAX: (419) 729-8501
MAIN FAX: (419) 729-8507
ENVIRONMENTAL FAX: (419) 729-8506

Date 9-25-96 No. Of Pages 17

To Mike Curry Company Chem Waste Fax #: 547 6144

From Bruce Fax #

Should you have a problem, please call (419)726-1500 and ask for the person sending the transmission.

Message: Sample CWV-24 is the Trip Blank.

CWV-21 = 3RD Rinse Outside Containment Area
CWV-22 = 3RD Rinse Pump House #2
CWV-23 = 3RD Rinse Sluice Pit

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EAGLE LABORATORIES INC.

47930 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

Date: 09/25/96

Project Name: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46744

Sample Description: CWV-21

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Total Cyanide	Not det	mg/L	0.005	EPA 335.2	09/13/96	TED
Temperature	31	Deg F			09/04/96	REG
Analysis						
1016	Not det	ug/L	0.2	SW846 8080	09/09/96	LLW
ARO 1221	Not det	ug/L	0.2	SW846 8080	09/09/96	LLW
ARO 1232	Not det	ug/L	0.4	SW846 8080	09/09/96	LLW
ARO 1242	Not det	ug/L	0.2	SW846 8080	09/09/96	LLW
ARO 1248	Not det	ug/L	0.2	SW846 8080	09/09/96	LLW
ARO 1254	Not det	ug/L	0.2	SW846 8080	09/09/96	LLW
ARO 1260	Not det	ug/L	0.2	SW846 8080	09/09/96	LLW
Extraction	NA			SW846 3510	09/06/96	GCG
Metals Analysis						
Total Arsenic	Not det	mg/L	0.001	EPA 206.3	09/09/96	CAG
Total Barium	Not det	mg/L	0.2	EPA 200.7	09/07/96	CAG
Total Cadmium	0.003	mg/L	0.0002	EPA 213.2	09/06/96	CAG
Total Chromium	Not det	mg/L	0.05	EPA 200.7	09/06/96	CAG
Total Copper	0.04	mg/L	0.025	EPA 200.7	09/06/96	CAG
Total Lead	0.012	mg/L	0.003	EPA 239.2	09/06/96	CAG
Total Mercury	Not det	mg/L	0.0002	EPA 245.1	09/06/96	CAG
Total Selenium	Not det	mg/L	0.005	EPA 270.3	09/09/96	CAG
Total Silver	Not det	mg/L	0.0005	EPA 272.2	09/07/96	CAG
Total Zinc	0.21	mg/L	0.02	EPA 200.7	09/06/96	CAG
Volatile Analysis						
Acetone	Not det	ug/L	50	SW846 8260	09/09/96	GTM
Benzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
nobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
mochloromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromodichloromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromoform	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromomethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM

EAGLE LABORATORIES INC.

Company Name: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46744

Sample Description: CWV-21

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Butanone (MEK)	Not det	ug/L	50	SW846 8260	09/09/96	GTM
Carbon Disulfide	Not det	ug/L	50	SW846 8260	09/09/96	GTM
Carbon Tetrachloride	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chlorobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chlorodibromomethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chloroform	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chloromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dibromo-3-chloropropane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dibromoethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromomethane	Not det	ug/L	5	SW846 8260	09/09/96	GTM
Dichlorodifluoromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1-Dichloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dichloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1-Dichloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
cis-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
trans-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dichloropropane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,3-Dichloropropane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
cis-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
trans-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Ethyl Benzene	Not det	ug/L	50	SW846 8260	09/09/96	GTM
2-Hexanone	Not det	ug/L	50	SW846 8260	09/09/96	GTM
4-Methyl-2-Pentanone (MIBK)	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Methylene Chloride	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Styrene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1,2,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Tetrachloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Toluene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1,1-Trichloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1,2-Trichloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Trichloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Trichlorofluoromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Vinyl Chloride	Not det	ug/L	3	SW846 8260	09/09/96	GTM
Total Xylenes	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dichlorobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,3-Dichlorobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,4-Dichlorobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Ethyl Acetate	Not det	ug/L	1	SW846 8260	09/09/96	GTM
n-Butyl Alcohol	Not det	ug/L	1	SW846 8260	09/09/96	GTM
2-Ethoxyethanol	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Methanol	Not det	mg/L	1.0	SW846 8015	09/22/96	[illegible]

EAGLE

Project Name: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46744

Sample Description: CWV-21

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Semi-Volatile Analysis						
Acenaphthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Acenaphthylene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Anthracene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzidine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzoic acid	Not det	ug/L	20	SW846 8270	09/10/96	LLW
Benzo(a)anthracene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(b)fluoranthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(k)fluoranthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(g,h,i)perylene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(a)pyrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzyl alcohol	Not det	ug/L	10	SW846 8270	09/10/96	LLW
Bis(2-chloroethoxy)methane	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Bis(2-chloroethyl)ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Bis(2-chloroisopropyl)ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Bis(2-ethylhexyl)phthalate	16	ug/L	5	SW846 8270	09/10/96	LLW
4-Bromophenyl phenyl ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Butyl benzyl phthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Chloroaniline	Not det	ug/L	10	SW846 8270	09/10/96	LLW
2-Chloronaphthalene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Chloro-3-methylphenol	Not det	ug/L	10	SW846 8270	09/10/96	LLW
2-Chlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Chlorophenylphenyl ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Chrysene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Dibenzo(a,h)anthracene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Dibenzofuran	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Di-n-butylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
1,3-Dichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
1,4-Dichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
1,2-Dichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
3,3'-Dichlorobenzidine	Not det	ug/L	10	SW846 8270	09/10/96	LLW
2,4-Dichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,6-Dichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Diethylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4-Dimethylphenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Dimethylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4,6-Dinitro-2-methylphenol	Not det	ug/L	20	SW846 8270	09/10/96	LLW
2,4-Dinitrophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4-Dinitrotoluene	Not det	ug/L	20	SW846 8270	09/10/96	LLW
2,6-Dinitrotoluene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Di-n-octylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Fluoranthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW

EAGLE Laboratories

Project Name: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46744

Sample Description: CWV-21

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Fluorene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachlorobutadiene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachlorocyclopentadiene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachloroethane	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Indeno(1,2,3)pyrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Isophorone	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Methylnaphthalene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Methylphenol (o-Cresol)	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Methylphenol (p-Cresol)	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Naphthalene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Nitroaniline	Not det	ug/L	20	SW846 8270	09/10/96	LLW
3-Nitroaniline	Not det	ug/L	20	SW846 8270	09/10/96	LLW
4-Nitroaniline	Not det	ug/L	20	SW846 8270	09/10/96	LLW
Nitrobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Nitrophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Nitrosodiphenylamine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
N-Nitrosodipropylamine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Pentachlorophenol	Not det	ug/L	20	SW846 8270	09/10/96	LLW
Phenanthrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Phenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Pyrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4,5-Trichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4,6-Trichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Nitrophenol	Not det	ug/L	20	SW846 8270	09/10/96	LLW
1,2,4-Trichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Pyridene	Not det	ug/L	1	SW846 8270	09/10/96	LLW

Not det: Not detected above the MDL

Reviewed by

Date 9/26/96

EAGLE LABORATORIES INC.

EAGLE LABORATORIES INC

47930 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

Date: 09/25/96

Project Name: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46745

Sample Description: CWV-22

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Total Cyanide	Not det	mg/L	0.005	EPA 335.2	09/13/96	TED
Temperature	31	Deg F			09/04/96	REG
PCB Analysis						
ARO 1016	Not det	ug/L	0.2	SW846 8080	09/09/96	LLW
ARO 1221	Not det	ug/L	0.2	SW846 8080	09/09/96	LLW
ARO 1232	Not det	ug/L	0.4	SW846 8080	09/09/96	LLW
ARO 1242	Not det	ug/L	0.2	SW846 8080	09/09/96	LLW
ARO 1248	Not det	ug/L	0.2	SW846 8080	09/09/96	LLW
ARO 1254	Not det	ug/L	0.2	SW846 8080	09/09/96	LLW
ARO 1260	Not det	ug/L	0.2	SW846 8080	09/09/96	LLW
Extraction	NA			SW846 3510	09/06/96	CCO
Metals Analysis						
Total Arsenic	0.008	mg/L	0.001	EPA 206.3	09/09/96	CAG
Total Barium	0.6	mg/L	0.2	EPA 200.7	09/07/96	CAG
Total Cadmium	0.011	mg/L	0.0002	EPA 213.2	09/06/96	CAG
Total Chromium	Not det	mg/L	0.05	EPA 200.7	09/06/96	CAG
Total Copper	0.073	mg/L	0.025	EPA 200.7	09/06/96	CAG
Total Lead	0.036	mg/L	0.003	EPA 239.2	09/06/96	CAG
Total Mercury	Not det	mg/L	0.0002	EPA 245.1	09/06/96	CAG
Total Selenium	Not det	mg/L	0.005	EPA 270.3	09/09/96	CAG
Total Silver	Not det	mg/L	0.0005	EPA 272.2	09/07/96	CAG
Total Zinc	1.5	mg/L	0.02	EPA 200.7	09/06/96	CAG
Volatile Analysis						
Acetone	Not det	ug/L	50	SW846 8260	09/09/96	GTM
Benzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromochloromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromodichloromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromoform	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromomethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM

EAGLE

Project Name: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46745

Sample Description: CWV-22

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
2-Butanone (MEK)	Not det	ug/L	50	SW846 8260	09/09/96	GTM
Carbon Disulfide	Not det	ug/L	50	SW846 8260	09/09/96	GTM
Carbon Tetrachloride	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chlorobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chlorodibromomethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chloroform	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chloromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dibromo-3-chloropropane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dibromoethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Dibromomethane	Not det	ug/L	5	SW846 8260	09/09/96	GTM
Dichlorodifluoromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1-Dichloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dichloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1-Dichloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
cis-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
trans-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dichloropropane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,3-Dichloropropane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
cis-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
trans-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Ethyl Benzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
2-Hexanone	Not det	ug/L	50	SW846 8260	09/09/96	GTM
4-Methyl-2-Pentanone (MIBK)	Not det	ug/L	50	SW846 8260	09/09/96	GTM
Methylene Chloride	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Styrene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1,1,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1,2,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Tetrachloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Toluene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1,1-Trichloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1,2-Trichloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Trichloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Trichlorofluoromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Vinyl Chloride	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Total Xylenes	Not det	ug/L	3	SW846 8260	09/09/96	GTM
1,4-Dichlorobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dichlorobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,3-Dichlorobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Ethyl Acetate	Not det	ug/L	1	SW846 8260	09/09/96	GTM
n-Butyl Alcohol	Not det	ug/L	1	SW846 8260	09/09/96	GTM
2-Ethoxyethanol	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Methanol	Not det	mg/L	1.0	SW846 8015	09/22/96	[illegible]

EAGLE LABORATORIES INC.

Proj ame: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46745

Sample Description: CWV-22

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Semi-Volatile Analysis						
Acenaphthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Acenaphthylene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Anthracene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzidine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzoic acid	Not det	ug/L	20	SW846 8270	09/10/96	LLW
Benzo(a)anthracene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(b)fluoranthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(k)fluoranthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(g,h,i)perylene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(a)pyrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzyl alcohol	Not det	ug/L	10	SW846 8270	09/10/96	LLW
Bis(2-chloroethoxy)methane	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Bis(2-chloroethyl)ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Bis(2-chloroisopropyl)ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Bis(2-ethylhexyl)phthalate	16	ug/L	5	SW846 8270	09/10/96	LLW
4-Bromophenyl phenyl ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Butyl benzyl phthalate	Not det	ug/L	10	SW846 8270	09/10/96	LLW
4-Chloroaniline	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Chloronaphthalene	Not det	ug/L	10	SW846 8270	09/10/96	LLW
4-Chloro-3-methylphenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Chlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Chlorophenylphenyl ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Chrysene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Dibenzo(a,h)anthracene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Dibenzofuran	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Di-n-butylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
1,3-Dichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
1,4-Dichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
1,2-Dichlorobenzene	Not det	ug/L	10	SW846 8270	09/10/96	LLW
3,3'-Dichlorobenzidine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4-Dichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,6-Dichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Diethylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4-Dimethylphenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Dimethylphthalate	Not det	ug/L	20	SW846 8270	09/10/96	LLW
4,6-Dinitro-2-methylphenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4-Dinitrophenol	Not det	ug/L	20	SW846 8270	09/10/96	LLW
2,4-Dinitrotoluene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,6-Dinitrotoluene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Di-n-octylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Fluoranthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW

EAGLE LABORATORIES INC.

Project Name: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46745

Sample Description: CWV-22

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Fluorene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachlorobutadiene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachlorocyclopentadiene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachloroethane	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Indeno(1,2,3)pyrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Isophorone	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Methylnaphthalene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Methylphenol (o-Cresol)	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Methylphenol (p-Cresol)	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Naphthalene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Nitroaniline	Not det	ug/L	20	SW846 8270	09/10/96	LLW
3-Nitroaniline	Not det	ug/L	20	SW846 8270	09/10/96	LLW
4-Nitroaniline	Not det	ug/L	20	SW846 8270	09/10/96	LLW
Nitrobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Nitrophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
N-Nitrosodiphenylamine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
N-Nitrosodipropylamine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Pentachlorophenol	Not det	ug/L	20	SW846 8270	09/10/96	LLW
Phenanthrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Phenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Pyrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4,5-Trichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4,6-Trichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Nitrophenol	Not det	ug/L	20	SW846 8270	09/10/96	LLW
1,2,4-Trichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Pyridene	Not det	ug/L	1	SW846 8270	09/10/96	LLW

Not det: Not detected above the MDL

Reviewed by

Date 9/26/96

EAGLE LABORATORIES INC.

EAGLE LABORATORIES INC.

47930 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

Date: 09/25/96

Project Name: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46746

Sample Description: CWV-23

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Total Cyanide	0.020	mg/L	0.005	EPA 335.2	09/13/96	TED
Temperature	31	Deg F			09/04/96	REG
PCB Analysis						
ARO 1016	Not det	ug/L	0.2	SW846 8080	09/13/96	TED
ARO 1221	Not det	ug/L	0.2	SW846 8080	09/13/96	TED
ARO 1232	Not det	ug/L	0.4	SW846 8080	09/13/96	TED
ARO 1242	Not det	ug/L	0.2	SW846 8080	09/13/96	TED
ARO 1248	Not det	ug/L	0.2	SW846 8080	09/13/96	TED
ARO 1254	Not det	ug/L	0.2	SW846 8080	09/13/96	TED
ARO 1260	Not det	ug/L	0.2	SW846 8080	09/13/96	TED
Extraction	NA			SW846 3510	09/06/96	GCG
Metals Analysis						
Total Arsenic	0.079	mg/L	0.001	EPA 206.3	09/09/96	CAG
Total Barium	1.0	mg/L	0.2	EPA 200.7	09/07/96	CAG
Total Cadmium	0.008	mg/L	0.0002	EPA 213.2	09/06/96	CAG
Total Chromium	0.19	mg/L	0.05	EPA 200.7	09/06/96	CAG
Total Copper	0.32	mg/L	0.025	EPA 200.7	09/06/96	CAG
Total Lead	0.073	mg/L	0.003	EPA 239.2	09/06/96	CAG
Total Mercury	0.016	mg/L	0.0002	EPA 245.1	09/06/96	CAG
Total Selenium	0.008	mg/L	0.005	EPA 270.3	09/09/96	CAG
Total Silver	0.005	mg/L	0.0005	EPA 272.2	09/07/96	CAG
Total Zinc	1.2	mg/L	0.02	EPA 200.7	09/06/96	CAG
Volatile Analysis						
Acetone	Not det	ug/L	50	SW846 8260	09/17/96	GTM
Benzene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Bromobenzene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Bromochloromethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Bromodichloromethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Bromoform	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Bromomethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM

EAGLE

Project Name: Chem Waste Vickery
lection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46746

Sample Description: CWV-23

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
2-Butanone (MEK)	Not det	ug/L	50	SW846 8260	09/17/96	GTM
Carbon Disulfide	Not det	ug/L	50	SW846 8260	09/17/96	GTM
Carbon Tetrachloride	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Chlorobenzene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Chlorodibromomethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Chloroethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Chloroform	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Chloromethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
1,2-Dibromo-3-chloropropane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
1,2-Dibromoethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Dibromomethane	Not det	ug/L	5	SW846 8260	09/17/96	GTM
Dichlorodifluoromethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
1,1-Dichloroethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
1,2-Dichloroethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Dichloroethene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
,2-Dichloroethene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
trans-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
1,2-Dichloropropane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
1,3-Dichloropropane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
cis-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
trans-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Ethyl Benzene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
2-Hexanone	Not det	ug/L	50	SW846 8260	09/17/96	GTM
4-Methyl-2-Pentanone (MIBK)	Not det	ug/L	50	SW846 8260	09/17/96	GTM
Methylene Chloride	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Styrene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
1,1,1,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
1,1,2,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Tetrachloroethene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Toluene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
1,1,1-Trichloroethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
1,1,2-Trichloroethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Trichloroethene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Trichlorofluoromethane	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Vinyl Chloride	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Total Xylenes	Not det	ug/L	3	SW846 8260	09/17/96	GTM
1,4-Dichlorobenzene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
1,3-Dichlorobenzene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Dichlorobenzene	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Acetate	Not det	ug/L	1	SW846 8260	09/17/96	GTM
-Butyl Alcohol	Not det	ug/L	1	SW846 8260	09/17/96	GTM
2-Ethoxyethanol	Not det	ug/L	1	SW846 8260	09/17/96	GTM
Methanol	Not det	mg/L	1.0	SW846 8015	09/22/96	[illegible]

EAGLE LABORATORIES INC.

P--ject Name: Chem Waste Vickery
ction Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46746

Sample Description: CWV-23

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Semi-Volatile Analysis						
Acenaphthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Acenaphthylene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Anthracene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzidine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzoic acid	Not det	ug/L	20	SW846 8270	09/10/96	LLW
Benzo(a)anthracene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(b)fluoranthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(k)fluoranthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(g,h,i)perylene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(a)pyrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzyl alcohol	Not det	ug/L	10	SW846 8270	09/10/96	LLW
Bis(2-chloroethoxy)methane	Not det	ug/L	5	SW846 8270	09/10/96	LLW
[illegible]-chloroethyl)ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
[illegible]-chloroisopropyl)ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Bis(2-ethylhexyl)phthalate	17	ug/L	5	SW846 8270	09/10/96	LLW
4-Bromophenyl phenyl ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Butyl benzyl phthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Chloroaniline	Not det	ug/L	10	SW846 8270	09/10/96	LLW
[illegible]-Chloronaphthalene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
[illegible]-Chloro-3-methylphenol	Not det	ug/L	10	SW846 8270	09/10/96	LLW
2-Chlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
[illegible]-Chlorophenylphenyl ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Chrysene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Dibenzo(a,h)anthracene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Dibenzofuran	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Di-n-butylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
1,3-Dichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
1,4-Dichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
[illegible],2-Dichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
3,3'-Dichlorobenzidine	Not det	ug/L	10	SW846 8270	09/10/96	LLW
2,4-Dichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
[illegible],6-Dichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Diethylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4-Dimethylphenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Dimethylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
[illegible],6-Dinitro-2-methylphenol	Not det	ug/L	20	SW846 8270	09/10/96	LLW
2,[illegible]-Dinitrophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
[illegible]-Dinitrotoluene	Not det	ug/L	20	SW846 8270	09/10/96	LLW
[illegible],6-Dinitrotoluene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Di-n-octylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Fluoranthene	Not det	ug/L	5	SW846 8270	09/10/96	[illegible]W

EAGLE

Project Name: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46746

Sample Description: CWV-23

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Fluorene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachlorobutadiene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachlorocyclopentadiene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachloroethane	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Indeno(1,2,3)pyrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Isophorone	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Methylnaphthalene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Methylphenol (o-Cresol)	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Methylphenol (p-Cresol)	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Naphthalene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Nitroaniline	Not det	ug/L	20	SW846 8270	09/10/96	LLW
3-Nitroaniline	Not det	ug/L	20	SW846 8270	09/10/96	LLW
4-Nitroaniline	Not det	ug/L	20	SW846 8270	09/10/96	LLW
Nitrobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Nitrophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
-Nitrosodiphenylamine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
N-Nitrosodipropylamine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Pentachlorophenol	Not det	ug/L	20	SW846 8270	09/10/96	LLW
Phenanthrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Phenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Pyrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4,5-Trichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4,6-Trichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Nitrophenol	Not det	ug/L	20	SW846 8270	09/10/96	LLW
1,2,4-Trichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Pyridene	Not det	ug/L	1	SW846 8270	09/10/96	LLW

Not det: Not detected above the MDL

Reviewed by

Date 9/26/96

EAGLE LABORATORIES INC.

EAGLE LABORATORIES INC.

47920 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

Date: 09/25/96

Project Name: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46747

Sample Description: CWV-24

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Total Cyanide	Not det	mg/L	0.005	EPA 335.2	09/13/96	TED
Temperature	31	Deg F			09/04/96	RFO
PCB Analysis						
ARO 1016	Not det	ug/L	0.2	SW846 8080	09/09/96	GTM
ARO 1221	Not det	ug/L	0.2	SW846 8080	09/09/96	GTM
ARO 1232	Not det	ug/L	0.4	SW846 8080	09/09/96	GTM
ARO 1242	Not det	ug/L	0.2	SW846 8080	09/09/96	GTM
ARO 1248	Not det	ug/L	0.2	SW846 8080	09/09/96	GTM
ARO 1254	Not det	ug/L	0.2	SW846 8080	09/09/96	GTM
ARO 1260	Not det	ug/L	0.2	SW846 8080	09/09/96	GTM
Extraction	NA			SW846 3510	09/06/96	GCO
Metals Analysis						
Total Arsenic	Not det	mg/L	0.001	EPA 206.3	09/09/96	CAG
Total Barium	Not det	mg/L	0.2	EPA 200.7	09/07/96	CAG
Total Cadmium	Not det	mg/L	0.0002	EPA 213.2	09/06/96	CAG
Total Chromium	Not det	mg/L	0.05	EPA 200.7	09/06/96	CAG
Total Copper	Not det	mg/L	0.025	EPA 200.7	09/06/96	CAG
Total Lead	0.004	mg/L	0.003	EPA 239.2	09/06/96	CAG
Total Mercury	Not det	mg/L	0.0002	EPA 245.1	09/06/96	CAG
Total Selenium	Not det	mg/L	0.005	EPA 270.3	09/09/96	CAG
Total Silver	Not det	mg/L	0.0005	EPA 272.2	09/07/96	CAG
Total Zinc	0.08	mg/L	0.02	EPA 200.7	09/06/96	CAG
Volatile Analysis						
Acetone	Not det	ug/L	50	SW846 8260	09/09/96	GTM
Benzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromochloromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromodichloromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromoform	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Bromomethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM

EAGLE

P Name: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46747

Sample Description: CWV-24

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Butanone (MEK)	Not det	ug/L	50	SW846 8260	09/09/96	GTM
Carbon Disulfide	Not det	ug/L	50	SW846 8260	09/09/96	GTM
Carbon Tetrachloride	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chlorobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chlorodibromomethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chloroform	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Chloromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dibromo-3-chloropropane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dibromoethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Dibromomethane	Not det	ug/L	5	SW846 8260	09/09/96	GTM
Dichlorodifluoromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1-Dichloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dichloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1-Dichloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
cis-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
trans-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dichloropropane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,3-Dichloropropane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
cis-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
trans-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Ethyl Benzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
2-Hexanone	Not det	ug/L	50	SW846 8260	09/09/96	GTM
4-Methyl-2-Pentanone (MIBK)	Not det	ug/L	50	SW846 8260	09/09/96	GTM
Methylene Chloride	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Styrene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1,1,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1,2,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Tetrachloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Toluene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1,1-Trichloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,1,2-Trichloroethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Trichloroethene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Trichlorofluoromethane	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Vinyl Chloride	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Total Xylenes	Not det	ug/L	3	SW846 8260	09/09/96	GTM
1,4-Dichlorobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,2-Dichlorobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
1,3-Dichlorobenzene	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Ethyl Acetate	Not det	ug/L	1	SW846 8260	09/09/96	GTM
n-Butyl Alcohol	Not det	ug/L	1	SW846 8260	09/09/96	GTM
2-Ethoxyethanol	Not det	ug/L	1	SW846 8260	09/09/96	GTM
Methanol	Not det	mg/L	1.0	SW846 8015	09/22/96	[illegible]

EAGLE Laboratories INC.

Pr Name: Chem Waste Vickery
Co. on Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46747

Sample Description: CWV-24

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
rial-Volatile Analysis						
Acenaphthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Acenaphthylene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
nthracene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzidine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzoic acid	Not det	ug/L	20	SW846 8270	09/10/96	LLW
enzo(a)anthracene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(b)fluoranthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzo(k)fluoranthene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
enzo(g,h,i)perylene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
enzo(a)pyrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Benzyl alcohol	Not det	ug/L	10	SW846 8270	09/10/96	LLW
is(2-chloroethoxy)methane	Not det	ug/L	5	SW846 8270	09/10/96	LLW
is(2-chloroethyl)ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Bis(2-chloroisopropyl)ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
is(2-ethylhexyl)phthalate	18	ug/L	5	SW846 8270	09/10/96	LLW
-Bromophenyl phenyl ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Butyl benzyl phthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
-Chloroaniline	Not det	ug/L	10	SW846 8270	09/10/96	LLW
-Chloronaphthalene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Chloro-3-methylphenol	Not det	ug/L	10	SW846 8270	09/10/96	LLW
-Chlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Chlorophenylphenyl ether	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Chrysene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Dibenzo(a,h)anthracene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
ibenzofuran	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Di-n-butylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
1,3-Dichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Dichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Dichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
3,3'-Dichlorobenzidine	Not det	ug/L	10	SW846 8270	09/10/96	LLW
4-Dichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
6-Dichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Diethylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Dimethylphenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
imethylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4,6-Dinitro-2-methylphenol	Not det	ug/L	20	SW846 8270	09/10/96	LLW
2,4-Dinitrophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Dinitrotoluene	Not det	ug/L	20	SW846 8270	09/10/96	LLW
2,6-Dinitrotoluene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Di-n-octylphthalate	Not det	ug/L	5	SW846 8270	09/10/96	LLW
luoranthene	Not det	ug/L	5	SW846 8270	09/10/96	[illegible]

EAGLE

Project Name: Chem Waste Vickery
Collection Date: 09/04/96

Eagle Report Number: 11158
Eagle Sample ID: EL46747

Sample Description: CWV-24

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Fluorene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachlorobutadiene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachlorocyclopentadiene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Hexachloroethane	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Indeno(1,2,3)pyrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Isophorone	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Methylnaphthalene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Methylphenol (o-Cresol)	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Methylphenol (p-Cresol)	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Naphthalene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Nitroaniline	Not det	ug/L	20	SW846 8270	09/10/96	LLW
3-Nitroaniline	Not det	ug/L	20	SW846 8270	09/10/96	LLW
4-Nitroaniline	Not det	ug/L	20	SW846 8270	09/10/96	LLW
Nitrobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2-Nitrophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
N-Nitrosodiphenylamine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
N-Nitrosodipropylamine	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Pentachlorophenol	Not det	ug/L	20	SW846 8270	09/10/96	LLW
Phenanthrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Phenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Pyrene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4,5-Trichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
2,4,6-Trichlorophenol	Not det	ug/L	5	SW846 8270	09/10/96	LLW
4-Nitrophenol	Not det	ug/L	20	SW846 8270	09/10/96	LLW
1,2,4-Trichlorobenzene	Not det	ug/L	5	SW846 8270	09/10/96	LLW
Pyridene	Not det	ug/L	1	SW846 8270	09/10/96	LLW

Not det: Not detected above the MDL

Reviewed by J. Kenyon

Date 9/26/96

EAGLE LABORATORIES INC.

Cousins

Waste Control • Environmental Services • Dust Control
PROVIDING QUALITY SERVICES SINCE 1971
1001 Matzinger Road
Toledo, Ohio 43612
(419) 726-1500 • (800) 433-5751

SALES FAX: (419) 729-8501
MAIN FAX: (419) 729-8507
ENVIRONMENTAL FAX: (419) 729-8506

Date 8-23-96 No. Of Pages 10

To Mike Curry Company ChemWaste Fax # 547 6144

From Bruce Fax #

Should you have a problem, please call (419)726-1500 and ask for the person sending the transmission.

Message:

Sample CWV-1 is the out side containment area. (3RD Rinse
CWV-2 is the 3RD Rinse from Pump House #2
CWV-3 is the 3RD Rinse from the Sluice Pit.

NOTICE

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EAGLE LABORATORIES INC.

47930 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

8/20/96

Name: Chem Waste Vickery
on Date: 08/12/96

Eagle Report Number: 10855
Eagle Sample ID: EL45766

Description: CWV-1

ers	Results	Units	MDL	Method	Analysis Date	Analyst
anide	Not det	mg/L	0.05	EPA 335.3	08/19/96	MMC
nalysis						
senic	Not det	mg/L	0.5	EPA 200.7	08/14/96	CAG
dmium	Not det	mg/L	0.05	EPA 200.7	08/14/96	CAG
ur n	0.08	mg/L	0.05	EPA 200.7	08/15/96	CAG
on	7.0	mg/L	0.05	EPA 200.7	08/14/96	CAG
ad	0.13	mg/L	0.05	EPA 200.7	08/15/96	CAG
ercury	Not det	mg/L	0.002	EPA 245.1	08/16/96	CAG
ckel	Not det	mg/L	0.05	EPA 200.7	08/14/96	CAG
ver	Not det	mg/L	0.05	EPA 272.1	08/15/96	CAG
	NA				08/14/96	MJG
alysis						
16	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
21	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
32	Not det	ug/L	0.4	SW846 8080	08/19/96	TED
42	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
48	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
54	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
60	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
on	NA			SW846 3510	08/16/96	GCG
Analysis						
	Not det	ug/L	50	SW846 8260	08/16/96	GTM
	Not det	ug/L	1	SW846 8260	08/16/96	GTM
enzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
hloromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
lichloromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
or	Not det	ug/L	1	SW846 8260	08/16/96	GTM
ne	Not det	ug/L	1	SW846 8260	08/16/96	GTM
one (MEK)	Not det	ug/L	50	SW846 8260	08/16/96	GTM
Disulfide	Not det	ug/L	50	SW846 8260	08/16/96	GTM

Project Name: Chem Waste Vickery
Collection Date: 08/12/96

Eagle Report Number: 10855
Eagle Sample ID: EL45766

Sample Description: CWV-1

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Carbon Tetrachloride	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chlorobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chlorodibromomethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chloroform	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chloromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dibromo-3-chloropropane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dibromoethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Dibromomethane	Not det	ug/L	5	SW846 8260	08/16/96	GTM
Dichlorodifluoromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1-Dichloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dichloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1-Dichloroethene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
cis-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
trans-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dichloropropane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
-Dichloropropane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
cis-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
trans-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Ethyl Benzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
2-Hexanone	Not det	ug/L	50	SW846 8260	08/16/96	GTM
4-Methyl-2-Pentanone (MIBK)	Not det	ug/L	50	SW846 8260	08/16/96	GTM
Methylene Chloride	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Styrene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1,1,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1,2,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Tetrachloroethene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Toluene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1,1-Trichloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1,2-Trichloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Trichloroethene	79	ug/L	1	SW846 8260	08/16/96	GTM
Trichlorofluoromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Vinyl Chloride	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Total Xylenes	Not det	ug/L	3	SW846 8260	08/16/96	GTM

EAGLE

Project Name: Chem Waste Vickery
Collection Date: 08/12/96

Eagle Report Number: 10855
Eagle Sample ID: EL45766

Sample Description: CWV-1

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
1,4-Dichlorobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,3-Dichlorobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dichlorobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM

Not det: Not detected above the MDL

Reviewed by J.J. Kenyon

Date 9/26/96

EAGLE LABORATORIES INC

EAGLE LABORATORIES INC.

47930 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

Date: 08/20/96

Project Name: Chem Waste Vickery
Collection Date: 08/12/96

Eagle Report Number: 10855
Eagle Sample ID: EL45767

Sample Description: CWV-2

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Total Cyanide	Not det	mg/L	0.05	EPA 335.3	08/19/96	MMC
Metals Analysis						
Total Arsenic	Not det	mg/L	0.5	EPA 200.7	08/14/96	CAG
Total Cadmium	Not det	mg/L	0.05	EPA 200.7	08/14/96	CAG
Total Chromium	0.07	mg/L	0.05	EPA 200.7	08/15/96	CAG
Total Iron	8.2	mg/L	0.05	EPA 200.7	08/14/96	CAG
Total Lead	0.14	mg/L	0.05	EPA 200.7	08/15/96	CAG
Total Mercury	Not det	mg/L	0.002	EPA 245.1	08/16/96	CAG
Total Nickel	0.05	mg/L	0.05	EPA 200.7	08/14/96	CAG
Total Silver	Not det	mg/L	0.05	EPA 272.1	08/15/96	CAG
Digest	NA				08/14/96	MJG
PCB Analysis						
ARO 1016	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
ARO 1221	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
ARO 1232	Not det	ug/L	0.4	SW846 8080	08/19/96	TED
ARO 1242	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
ARO 1248	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
ARO 1254	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
ARO 1260	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
Extraction	NA			SW846 3510	08/16/96	GCG
Volatile Analysis						
Acetone	Not det	ug/L	50	SW846 8260	08/16/96	GTM
Benzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Bromobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Bromochloromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Bromodichloromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Bromoform	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Bromomethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
2-Butanone (MEK)	Not det	ug/L	50	SW846 8260	08/16/96	GTM
Carbon Disulfide	Not det	ug/L	50	SW846 8260	08/16/96	GTM

EAGLE

Project Name: Chem Waste vickery
Collection Date: 08/12/96

Eagle Report Number: 10855
Eagle Sample ID: EL45767

mple Description: CWV-2

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Carbon Tetrachloride	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chlorobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chlorodibromomethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chloroform	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chloromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dibromo-3-chloropropane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dibromoethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Dibromomethane	Not det	ug/L	5	SW846 8260	08/16/96	GTM
Dichlorodifluoromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1-Dichloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dichloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1-Dichloroethene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
cis-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
trans-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dichloropropane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,3-Dichloropropane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
trans-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Ethyl Benzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
2-Hexanone	Not det	ug/L	50	SW846 8260	08/16/96	GTM
4-Methyl-2-Pentanone (MIBK)	Not det	ug/L	50	SW846 8260	08/16/96	GTM
Methylene Chloride	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Styrene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1,1,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1,2,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Tetrachloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Toluene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1,1-Trichloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1,2-Trichloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Trichloroethene	5	ug/L	1	SW846 8260	08/16/96	GTM
Trichlorofluoromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Vinyl Chloride	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Total Xylenes	Not det	ug/L	3	SW846 8260	08/16/96	GTM

EAGLE Analytical Inc.

Project Name: Chem Waste Vickery
Collection Date: 08/12/96

Eagle Report Number: 10855
Eagle Sample ID: EL45767

Sample Description: CWV-2

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
1,4-Dichlorobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,3-Dichlorobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dichlorobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM

Not det: Not detected above the MDL

Reviewed by J. J. Kenyon

Date 9/26/96

EAGLE LABORATORIES INC.

EAGLE LABORATORIES INC.

47930 West Road • Wixom, Michigan 48393
Phone: (810) 624-3090 • Fax: (810) 624-3095

To: COUSINS ENVIRONMENTAL SERVICES
1701 E. Matzinger Road
Toledo, OH 43612

Date: 08/20/96

Project Name: Chem Waste Vickery
Collection Date: 08/12/96

Eagle Report Number: 10855
Eagle Sample ID: EL45768

Sample Description: CWV-3

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Total Cyanide	Not det	mg/L	0.05	EPA 335.3	08/19/96	MMC
Metals Analysis						
Total Arsenic	Not det	mg/L	0.5	EPA 200.7	08/14/96	CAG
Total Cadmium	Not det	mg/L	0.05	EPA 200.7	08/14/96	CAG
al Chromium	0.41	mg/L	0.05	EPA 200.7	08/15/96	CAG
al Iron	24	mg/L	0.05	EPA 200.7	08/14/96	CAG
Total Lead	0.13	mg/L	0.05	EPA 200.7	08/15/96	CAG
Total Mercury	0.005	mg/L	0.002	EPA 245.1	08/20/96	CAG
Total Nickel	0.08	mg/L	0.05	EPA 200.7	08/14/96	CAG
Total Silver	Not det	mg/L	0.05	EPA 272.1	08/15/96	CAG
Digest	NA				08/14/96	MJG
PCB Analysis						
ARO 1016	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
ARO 1221	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
ARO 1232	Not det	ug/L	0.4	SW846 8080	08/19/96	TED
ARO 1242	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
ARO 1248	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
ARO 1254	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
ARO 1260	Not det	ug/L	0.2	SW846 8080	08/19/96	TED
Extraction	NA			SW846 3510	08/16/96	GCG
Volatile Analysis						
Acetone	Not det	ug/L	50	SW846 8260	08/16/96	GTM
Benzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Bromobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Bromochloromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Bromodichloromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Bromoform	Not det	ug/L	1	SW846 8260	08/16/96	GTM
omomethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
utanone (MEK)	Not det	ug/L	50	SW846 8260	08/16/96	GTM
Carbon Disulfide	Not det	ug/L	50	SW846 8260	08/16/96	GTM

Project Name: CWM Waste Vickery
Collection Date: 08/12/96

Eagle Report Number: 10855
Eagle Sample ID: EL45768

ample Description: CWV-3

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
Carbon Tetrachloride	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chlorobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chlorodibromomethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chloroform	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Chloromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dibromo-3-chloropropane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dibromoethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Dibromomethane	Not det	ug/L	5	SW846 8260	08/16/96	GTM
Dichlorodifluoromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1-Dichloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dichloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1-Dichloroethene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
cis-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
trans-1,2-Dichloroethene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dichloropropane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,3-Dichloropropane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
cis-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
trans-1,3-Dichloropropene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Ethyl Benzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
2-Hexanone	Not det	ug/L	50	SW846 8260	08/16/96	GTM
4-Methyl-2-Pentanone (MIBK)	Not det	ug/L	50	SW846 8260	08/16/96	GTM
Methylene Chloride	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Styrene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1,1,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1,2,2-Tetrachloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Tetrachloroethene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Toluene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1,1-Trichloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,1,2-Trichloroethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Trichloroethene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Trichlorofluoromethane	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Vinyl Chloride	Not det	ug/L	1	SW846 8260	08/16/96	GTM
Total Xylenes	Not det	ug/L	3	SW846 8260	08/16/96	GTM

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Project Name: Chem Waste Vickery
Collection Date: 08/12/96

Eagle Report Number: 10855
Eagle Sample ID: EL45768

Sample Description: CWV-3

Parameters	Results	Units	MDL	Method	Analysis Date	Analyst
1,4-Dichlorobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,3-Dichlorobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM
1,2-Dichlorobenzene	Not det	ug/L	1	SW846 8260	08/16/96	GTM

Not det: Not detected above the MDL

Reviewed by J J Kenyon

Date 9/26/96

EAGLE LABORATORIES INC.