

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name: Sanitary Dash Manufacturing Company
Facility Address: River Street, North Grosvenordale, CT
Facility EPA ID #: CTD001153840

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

If yes - check here and continue with #2 below.

If no - re-evaluate existing data, or

if data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be "**contaminated**"¹ above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater	<u> x </u>	<u> </u>	<u> </u>	<u>thallium, lead, nickel</u>
Air (indoors) ²	<u> </u>	<u> x </u>	<u> </u>	<u>no reason to suspect contamination</u>
Surface Soil (e.g., <2 ft)	<u> </u>	<u> x </u>	<u> </u>	<u>See below</u>
Surface Water	<u> </u>	<u> x </u>	<u> </u>	<u>not above human health criteria</u>
Sediment	<u> x </u>	<u> </u>	<u> </u>	<u>chromium</u>
Subsurf. Soil (e.g., >2 ft)	<u> </u>	<u> x </u>	<u> </u>	<u>See below</u>
Air (outdoors)	<u> </u>	<u> x </u>	<u> </u>	<u>no reason to suspect contamination</u>

_____ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

 x If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

_____ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

Groundwater: Groundwater data collected since 1984 were compared to CT Remediation Standard Regulation (RSR) GA/GAA groundwater protection criteria (GWPC). Based on this comparison, there were isolated exceedances in well B-2, which is upgradient of the facility (0.028 mg/l lead detected in 1999 compared to GWPC of 0.015 mg/l; 0.111 mg/l nickel detected in 1999 compared to GWPC of 0.10 mg/l). In addition, thallium was detected in 2 wells in 1999 (0.0072 mg/l in GZ-2 and 0.0055 mg/l in GZ-5). These thallium detections are only slightly above the GWPC of 0.005 and there is no information to suggest that thallium was used in operations at Sanitary Dash Manufacturing Company (SD). It was never detected in previous groundwater samples collected at the SD facility.

Indoor Air: There is currently no reason to suspect indoor air contamination; elevated levels of VOCs have not been detected in soils or groundwater and there is no information to suggest that VOCs were released inside the building.

Footnotes:

¹ "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

² Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

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Surface Soil: Previous sampling, reported in June 1998, detected slightly elevated levels of metals (arsenic, lead, and chromium) and PAHs (benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene) in surface soils of the former surface impoundments. These constituents were thought to have resulted from coal ash that was used as backfill when contaminated soils were removed from the surface impoundments in 1984. The top two feet of soil was removed from the former impoundments in April 1999. Twelve post excavation samples found that all concentrations of metals and PAHs were below the CT RSR residential direct exposure criteria (RDEC) for soils. In 1990, surface soils in the vicinity of the cyclone dust collectors were sampled (10 samples from 5 locations) by TCLP for lead and found to be below the toxicity characteristic limit of 5.0 mg/L. Following this work, the top 6 inches of soil was removed so that a base course of gravel could be placed and the area paved. Additional work performed in this area is described below under Subsurface Soil.

Surface Water: Surface water samples reported in June 1998 found no constituents above CT water quality standards for consumption of organisms only and of water and organisms.

Sediment: Sediment samples, reported in June 1998, were collected from the head race, tail race, and French River and analyzed for metals, as SD discharged raw plating waste into the tail race until 1967, when it began operating a wastewater treatment system. Sample results showed concentrations of total chromium exceeding CT RSR RDEC for soils for hexavalent chromium. However, the sample point where the highest concentration of total chromium was detected was upstream of the SD facility. Therefore, it is uncertain to what degree SD contributed to elevated levels of chromium in sediments.

Sub-surface Soil: Samples reported in June 1998 collected at intervals of 0.5 to 2 feet and 2 to 4 feet from eight soil borings in the vicinity of the former cyclone dust collectors showed levels of copper in soils above CT RSR RDEC (up to 2630 mg/kg compared to the RDEC of 2500 mg/kg). However, average copper concentrations were 1225 mg/kg at 0.5 to 2 feet and 1211 mg/kg at 2 to 4 feet. Total chromium results from five samples were found to exceed the CT RSR RDEC for hexavalent chromium (up to 618 mg/kg compared to 100 mg/kg), but were well below the CT RSR RDEC for trivalent chromium. However, no hexavalent chromium was detected in all five of these samples (see attachment 1). A 1500-gallon in-ground concrete tank was used by SD from 1969 to 1988 for accumulation of metal hydroxide sludge. The tank was excavated and removed in 1993 and soils were removed to a depth of 10 to 12 feet until further excavation was impeded by tightly packed boulders and cobbles, the wall of the facility building, and the 16,000 gallon clarifier tank. Samples reported in June 1998 showed levels of total chromium in excess of the CT DEP RDEC for hexavalent chromium, but well below the RDEC for trivalent chromium. The areas from which these samples were collected were resampled in September 1998 and analyzed for hexavalent chromium. No hexavalent chromium was detected. Nickel was detected in 2 soil samples at levels above the CT RSR RDEC, but below the industrial commercial DEC (see attachment 1).

Outdoor Air: There is currently no reason to suspect outdoor air contamination.

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3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential Human Receptors (Under Current Conditions)

<u>"Contaminated" Media</u>	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food ³
Groundwater	<u>no</u>	<u>no</u>	<u>no</u>	<u>no</u>			<u>no</u>
Sediment	<u>yes</u>	<u>yes</u>			<u>yes</u>	<u>yes</u>	<u>yes</u>

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated") as identified in #2 above.
2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

_____ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

__x__ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

_____ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

Groundwater: The SD facility is located in a GB classified area. GB indicates groundwater within a highly urbanized area of intense industrial activity that may not be suitable for direct human consumption due to waste discharges, spills, or leaks of chemicals or land use impacts. For this class of groundwater, CTDEP has established a goal of preventing further degradation of groundwater. The local health department (Windham County Health Department) and the local public water supply (Crystal Water of Danielson) report that all properties in the vicinity of SD are supplied by public water.

³ Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

Sediment: It is possible that residents may be exposed to sediment, however this is not likely in the immediate downstream vicinity of the facility, as there are no residential properties abutting the river. Trespassers may be potentially exposed to sediment in the on-site raceway and downstream sections of the French River. Kids have been observed fishing immediately downstream from the facility. Workers collecting samples may be exposed to sediment.

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4 Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be "**significant**"⁴ (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

Sediment: While total chromium has been detected in sediment at levels exceeding the CT RSR RDEC for hexavalent chromium in soil, it is unlikely that direct contact to sediments would approach the extent of contact assumed in development of the RDEC. In addition, the highest concentration of total chromium in sediment was detected upstream of the facility. Therefore, it is not clear to what degree concentrations of total chromium observed in the sediments were due to upstream sources. The most significant exposure pathway to contaminants in sediments would likely be to contaminants ingested by fish and then consumed by kids fishing in the French River, immediately downstream from the facility. Fish tissue data collected by CT DEP in 1987 is attached (attachment 2). Samples 47326 through 47332 were collected from the Grosvenordale Impoundment. This impoundment is downstream of the SD facility and would be a likely location for deposition of sediments from the section of the French River in which the SD facility is located. Fish tissue concentrations of all metals related to SD operations (i.e., nickel, chromium, copper, and zinc) were below risk based concentrations for consumption of fish tissue (EPA Region III Risk-based Concentration Table: nickel, 27 mg/kg; hexavalent chromium 4.1 mg/kg; copper 54 mg/kg; zinc 410 mg/kg). While these sample results were collected 13 years ago, based on conversations with CT Dept. of Health, mercury is the only metal that has been observed at unsafe levels for human consumption in fish based on all fish sampling performed state-wide. Therefore, it is unlikely that metals related to SD operations would accumulate in fish tissue at levels unsafe for human consumption.

⁴ If there is any question on whether the identified exposures are "significant" (i.e., potentially

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5 Can the "significant" exposures (identified in #4) be shown to be within **acceptable** limits?

_____ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

_____ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

_____ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s):

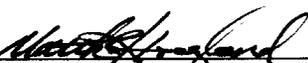
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6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

- YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Sanitary Dash Manufacturing Company facility, EPA ID #CTD001153840, located at River Street in North Grosvenordale, CT under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.
- NO - "Current Human Exposures" are NOT "Under Control."
- IN - More information is needed to make a determination.

Completed by (signature)  Date 8/22/01
(print) Stephanie Carr
(title) RCRA Facility Manager

Supervisor (signature)  Date 9/4/01
(print) Matthew R. Hoagland
(title) Chief, RCRA Corrective Action Section
(EPA Region or State) EPA Region I

Locations where References may be found:

- 1 Groundwater Monitoring Report dated February 1993 prepared by Environmental Laboratories, Inc. for Sanitary Dash Manufacturing Company
- 2 1993 Annual Groundwater Monitoring Report dated January 5, 1994 prepared by Environmental Laboratories, Inc. for Sanitary Dash Manufacturing Company
- 3 Groundwater Monitoring Program Annual Report dated February 1995 prepared by Environmetrix Research & Consulting for Sanitary Dash Manufacturing Company
- 4 Groundwater Monitoring Program Annual Report dated February 1996 prepared by Environmetrix Research & Consulting for Sanitary Dash Manufacturing Company
- 5 Groundwater Monitoring Program Annual Report dated December 1996 prepared by Environmetrix Research & Consulting for Sanitary Dash Manufacturing Company

Contact telephone and e-mail numbers

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FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

- 6 Groundwater Monitoring Program Annual Report dated December 1997 prepared by Environmetrix Research & Consulting for Sanitary Dash Manufacturing Company
- 7 Data Summary Connecticut RSR Evaluation/RCRA Closure Equivalency Fieldwork Program, prepared by GZA GeoEnvironmental Inc. for Sanitary Dash Manufacturing Co., Inc. dated June 1998
- 8 RCRA Closure Equivalency Evaluation dated July 2001 prepared by GZA GeoEnvironmental, Inc. for Sanitary Dash Manufacturing Co., Inc.
9. Phase I Environmental Review, prepared by GZA GeoEnvironmental Inc. for Sanitary Dash Manufacturing Co., Inc. dated January 1997(available at EPA Region I).
10. Connecticut Remediation Standard Regulations, June 30, 1996
11. EPA Region III Risk-Based Concentration Table (May 2001 Update)

ATTACHMENT 1

TABLE 8A
 SUMMARY OF SOIL ANALYTICAL DATA
 CONNECTICUT RSR EVALUATION - DIRECT EXPOSURE CRITERIA
 CYCLONE DUST COLLECTOR AREAS
 Sanitary Dash Manufacturing Company
 North Grosvenordale, CT
 June 1998

Sample No.	Sample Depth (ft. bgs.)	Results (mg/Kg)						
		Copper	Total Chromium	Hexavalent Hex-Chromium	Trivalent (2) Chromium	Lead	Nickel	Zinc
Cyclone Dust Collectors No.'s 1 and 2								
DC1A (0.5-2) (2)	0.5-2	2630	<i>292/256 (2)</i>	<20 (2)	<236	184	78.2	754
DC1A (2-3) (2)	2-3	2570	<i>349/130(2)</i>	<20 (2)	<329	182	59.1	1100
DC1B (0.5-2)	0.5-2	165	22.1	--	--	16.3	13.6	95.6
DC1B (2-4)	2-4	337	49.3	--	--	23.9	16.0	172
DC1C (0.5-2)	0.5-2	54.1	28.7	--	--	19.1	11.5	53.2
DC1C (2-4)	2-4	17.7	22.2	--	--	8.80	11.9	44.0
DC1D (0.5-2) (2)	0.5-2	2050	<i>618</i>	<20	<598	174	73.7	845
DC1D (2-2.5) (2)	2-2.5	1920	<i>467</i>	<20	<447	153	72.8	693
Cyclone Dust Collector No. 3								
DC2A (0.5-2)	0.5-2	1320	<i>122</i>	<2 (2)	<120	154	93.6	742
DC2A (2-4)	2-4	216	27.7	--	--	32.3	18.2	132
DC2B (0.5-2)	0.5-2	117	28.7	--	--	51.9	15.4	198
DC2B (2-4)	2-4	43.8	24.4	--	--	20.9	11.3	68.3
DC2C (0.5-2)	0.5-2	352	26.3	--	--	59.4	13.4	255
DC2C (2-4)	2-4	29.3	20.8	--	--	25.0	10.1	34.5
DC2D (0.5-2)	0.5-2	845	30.8	--	--	103	22.7	495
DC2D (2-4)	2-4	11.2	17.3	--	--	14.9	6.50	26.6
Connecticut RSR Numeric Criteria								
R-DEC		2500	NA	100(hexCr)	3900	500	1400	20000
I/C-DEC		76000	NA	100(hexCr)	51000	1000	7500	610000

Notes:

I/C-DEC = RSR direct exposure criteria for industrial/commercial areas. R-DEC = RSR direct exposure criteria for residential areas.

Bolded values indicate an exceedance of residential direct exposure criteria.

Bolded values in italics indicate a potential exceedance of residential direct exposure criteria.

Bolded values in italics and underlined indicate a potential exceedance of commercial/industrial direct exposure criteria.

I/C-DEC and R-DEC values listed for chromium are those for hexavalent chromium.

I/C-DEC and R-DEC for chromium are evaluated under the RSRs with respect to both trivalent and hexavalent chromium.

The above soil samples were analyzed for total chromium by mass analysis as a screening method.

Analysis for hexavalent chromium is required to determine an actual exceedance.

ft. bgs = Feet below ground surface.

NA = Not applicable.

mg/Kg = Milligrams per Kilogram.

-- = Not Analyzed

(1) Concentrations of Trivalent Chromium determined by subtracting Hexavalent Chromium concentrations from the respective total Chromium concentration.

(2) Area resampled 09/29/98 and analyzed for Hexachromium to determine compliance with RSR DEC.

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TABLE 8B
 SUMMARY OF SOIL ANALYTICAL DATA
 CONNECTICUT RSR EVALUATION - POLLUTANT MOBILITY CRITERIA
 CYCLONE DUST COLLECTOR AREAS
 Sanitary Dash Manufacturing Company
 North Grosvenordale, CT
 February 1998

Sample No.	Sample Depth (ft. bgs.)	Results (mg/Kg)									
		Copper		Chromium		Lead		Nickel		Zinc	
		Mass (mg/Kg)	SPLP (mg/L)	Mass (mg/Kg)	SPLP (mg/L)	Mass (mg/Kg)	SPLP (mg/L)	Mass (mg/Kg)	SPLP (mg/L)	Mass (mg/Kg)	SPLP (mg/L)
Cyclone Dust Collectors No.'s 1 and 2											
DC1A (0.5-2)	0.5-2	2630	0.188	292	0.032	184	<0.0500	78.2	<0.0160	754	--
DC1A (2-3)	2-3	2570	0.164	349	0.024	182	<0.0500	59.1	0.02	1100	1.14
DC1B (0.5-2)	0.5-2	165	--	22.1	0.008	16.3	<0.0500	13.6	--	95.6	--
DC1B (2-4)	2-4	337	0.058	49.3	<0.0070	23.9	<0.0500	16.0	--	172	--
DC1C (0.5-2)	0.5-2	54.1	--	28.7	0.009	19.1	<0.0500	11.5	--	53.2	--
DC1C (2-4)	2-4	17.7	--	22.2	0.009	8.80	<0.0500	11.9	--	44.0	--
DC1D (0.5-2)	0.5-2	2050	0.215	618	0.046	174	<0.0500	73.7	0.022	845	--
DC1D (2-2.5)	2-2.5	1920	0.264	467	0.035	153	<0.0500	72.8	0.25	693	--
Cyclone Dust Collector No. 3											
DC2A (0.5-2)	0.5-2	1320	0.425	122	0.013	154	<0.0500	93.6	<0.0160	742	--
DC2A (2-4)	2-4	216	--	27.7	0.008	32.3	<0.0500	18.2	--	132	--
DC2B (0.5-2)	0.5-2	117	--	28.7	0.008	51.9	<0.0500	15.4	--	198	--
DC2B (2-4)	2-4	43.8	<0.0120	24.4	<0.0070	20.9	<0.0500	11.3	--	68.3	--
DC2C (0.5-2)	0.5-2	352	0.036	26.3	0.007	59.4	<0.0500	13.4	--	255	--
DC2C (2-4)	2-4	29.3	--	20.8	<0.0070	25.0	<0.0500	10.1	--	34.5	--
DC2D (0.5-2)	0.5-2	845	0.102	30.8	0.011	103	<0.0500	22.7	<0.0160	495	--
DC2D (2-4)	2-4	11.2	--	17.3	0.009	14.9	<0.0500	6.50	--	26.6	--
Connecticut RSR Numeric Criteria											
GB PMC (Based on SPLP)		NA	13	NA	0.5	NA	0.15	NA	1	50	NA
GB PMC x 20 (Calc. SPLP value)		260	NA	10	NA	3	NA	20	NA	NA	1000

Notes:

GB PMC = RSR pollutant mobility criteria for GB groundwater quality areas.

The Connecticut RSRs evaluate PMC values with regard to analytical data derived by either SPLP or TCLP extraction.

CTDEP currently allows comparison of analytical data derived by mass extraction to twenty times PMC numeric values as a gross indication of potential SPLP concentrations.

Values in bold face italics could potentially exceed GB PM criteria, based on a gross comparison to twenty times PMC numeric values.

SPLP analysis of the above samples is required to determine an actual exceedance of PMC.

NA = Not applicable.

ft. bgs = Feet below ground surface.

mg/kg = Milligrams per Kilogram.

-- = Not analyzed.

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TABLE 7A
 SUMMARY OF ANALYTICAL RESULTS
 CONNECTICUT RSR EVALUATION - DIRECT EXPOSURE CRITERIA
 FORMER 1,500 GALLON SETTLING UST
 Sanitary Dash Manufacturing Company
 North Grosvenordale, CT
 June 1998

Sample No.	Depth ft. bgs.	TPH ug/g	Nickel mg/Kg	Copper mg/Kg	Chromium mg/Kg	Hexavalent Chromium mg/Kg	Trivalent(1) Chromium mg/Kg	Lead mg/Kg	Zinc mg/Kg	Cyanide mg/Kg	pH std. units
B101 3-5	3-5'	<10	32.2	39.8	46.8	--	--	16.3	63.3	<1	6.98
B101 5-7	5-7'	<10	41.8	55.5	53.5	--	--	15.7	60.7	<1	6.78
B101 8-10	8-10'	<10	15.7	35.5	17.5	--	--	7.62	28.5	<1	6.46
B102 3-5	3-5'	<10	17.1	19.7	26.6	--	--	20.9	40.4	<1	6.24
B102 5-7	5-7'	<10	12.0	13.2	22.9	--	--	17.1	30.9	<1	5.07
B102 8-10	8-10'	<10	11.3	6.66	18.0	--	--	11.7	25.0	<1	6.15
B103 3-5	3-5'	<10	<i>357/74.7(2)</i>	<i>509/115(2)</i>	<i>340/78.3(2)</i>	<2 (2)	<338 (1)	88.8	317	<1	6.41
B103 5-7	5-7'	<10	<i>424/18.6</i>	<i>724/32.8</i>	<i>515/26.8</i>	<2 (2)	<513 (2)	108	342	<1	6.42
B103 8-10	8-10'	<10	<i>96.0/46.4</i>	<i>179/66.0</i>	<i>107/50.6</i>	<2 (2)	<105 (2)	94.0	129	<1	6.24
B104 3-5	3-5'	<10	39.6	70.8	41.6	--	--	42.4	62.7	<1	6.48
B104 5-7	5-7'	<10	62.3	109	70.5	--	--	34.1	81.7	<1	7.32
B104 8-10	8-10'	<10	13.5	13.4	12.0	--	--	6.33	19.1	<1	6.85
B105 3-5	3-5'	<10	20.3	38.9	41.6	<2 (2)	<39.6	15.7	39.9	<1	6.79
B105 5-7	5-7'	<10	12.0	8.93	16.0	--	--	7.81	19.7	<1	7.08
B105 8-10	8-10'	<10	14.3	6.24	19.4	--	--	6.14	32.8	<1	6.64
Metals (mg/Kg)											
B-201-S1	8-10'	--	117	123	71.5	<2	<69.5	42.5	--	--	--
B-201 S2	10-12'	--	12.9	7.26	12.1	<2	<10.1	<6.34	--	--	--
B-202 S1	8-10'	--	44.7	24.3	25.9	<2	<23.9	12.7	--	--	--
B-202 S2	10-12'	--	15.2	10.8	15.6	<2	<13.6	<6.41	--	--	--
B-203 S1	8-10'	--	3640	60.1	25.3	<2	<23.3	6.48	--	--	--
B-203 S2	10-12'	--	209	11.9	13.8	<2	<11.8	8.57	--	--	--
B-204 S1	8-10'	--	1570	11.5	24.2	<2	<22.2	7.07	--	--	--
B-204 S2	10-12'	--	59.6	6.23	14.1	<2	<12.1	<6.13	--	--	--
Connecticut RSR Numeric Criteria											
R-DEC		500	1400	2500	NA	100	3900	500	20000	1400	NA
I/C-DEC		2500	7500	76000	NA	100	51000	1000	610000	41000	NA

Notes:

I/C-DEC = RSR direct exposure criteria for industrial/commercial areas. R-DEC = RSR direct exposure criteria for residential areas.

Values in italics indicate a potential exceedance of residential and commercial direct exposure criteria.

Values in bold face indicate an exceedance of residential direct exposure criteria.

Underlined values indicate an exceedance of commercial/industrial direct exposure criteria.

I/C-DEC and R-DEC values listed for chromium are those for hexavalent chromium.

I/C-DEC and R-DEC for chromium are evaluated under the RSRs with respect to both trivalent and hexavalent chromium.

(1) Concentrations of trivalent chromium determined by subtracting hexavalent chromium concentrations from the respective total chromium concentration.

(2) Area resampled 09/29/98 and analyzed for hexavalent chromium to determine compliance with RSR DEC.

The above soil samples were analyzed for total chromium by mass analysis as a screening method.

Analysis for hexavalent chromium is required to determine an actual exceedance.

ft. bgs = Feet below ground surface.

ug/g = Micrograms per gram.

mg/Kg = Milligrams per Kilogram.

TPH = Total petroleum hydrocarbons analyzed by EPA Test Method 8100.

NA = Not applicable.

-- = Not Analyzed.

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**TABLE 7B
SUMMARY OF ANALYTICAL RESULTS
CONNECTICUT RSR EVALUATION - POLLUTANT MOBILITY CRITERIA
FORMER 1,500 GALLON SETTLING UST
Sanitary Dash Manufacturing Company
North Grosvenordale, CT
June 1998**

Sample No.	Depth ft. bgs.	TPH ug/g	Nickel		Copper		Chromium		Lead		Zinc mg/Kg	Cyanide mg/Kg	pH std. units
			mass (mg/Kg)	SPLP (mg/L)	mass (mg/Kg)	SPLP (mg/L)	mass (mg/Kg)	SPLP (mg/L)	mass (mg/Kg)	SPLP (mg/L)			
B101 3-5	3-5'	<10	32.2	<0.016	39.8	--	46.8	0.01	16.3	<0.05	63.3	<1	6.98
B101 5-7	5-7'	<10	41.8	<0.016	55.5	--	53.5	<0.007	15.7	<0.05	60.7	<1	6.78
B101 8-10	8-10'	<10	15.7	--	35.5	--	17.5	<0.007	7.62	<0.05	28.5	<1	6.46
B102 3-5	3-5'	<10	17.1	--	19.7	--	26.6	<0.007	20.9	<0.05	40.4	<1	6.24
B102 5-7	5-7'	<10	12.0	--	13.2	--	22.9	<0.007	17.1	<0.05	30.9	<1	5.07
B102 8-10	8-10'	<10	11.3	--	6.66	--	18.0	--	11.7	--	25.0	<1	6.15
B103 3-5	3-5'	<10	357/74.7(2)	(.045)	509/115(2)	(<.032)	340/78.3(2)	(<.009)	88.8/42.9(2)	(<0.062)	317	<1	6.41
B103 5-7	5-7'	<10	424/18.6(2)	(<0.033)	724/32.8(2)	(<.032)	515/26.8(2)	(<.009)	108/36.1(2)	(<0.062)	342	<1	6.42
B103 8-10	8-10'	<10	96.0/46.4(2)	<0.016 (<.033)	179/66.0	(<.032)	107/50.6(2)	<0.007 (<.009)	94.0/40.5(2)	(<0.062)	129	<1	6.24
B104 3-5	3-5'	<10	39.6	<0.016	70.8	--	41.6	<0.007	42.4	<0.05	62.7	<1	6.48
B104 5-7	5-7'	<10	62.3	<0.016	109	--	70.5	<0.007	34.1	<0.05	81.7	<1	7.32
B104 8-10	8-10'	<10	13.5	--	13.4	--	12.0	<0.007	6.33	<0.05	19.1	<1	6.85
B105 3-5	3-5'	<10	20.3/13.4(2)	(<.0330)	38.9/11.6(2)	(<.032)	41.6/33.1(2)	(<.009)	15.7/6.16(2)	(<.032)	39.9	<1	6.79
B105 5-7	5-7'	<10	12.0	--	8.93	--	16.0	<0.007	7.81	--	19.7	<1	7.08
B105 8-10	8-10'	<10	14.3	--	6.24	--	19.4	<0.007	6.14	<0.05	32.8	<1	6.64
Metals (mg/Kg)													
B-201 8-10	8-10'	NE	117	<0.033	123	<0.032	71.5	<0.009	42.5	<0.0620	--	--	--
B-201 10-12	10-12'	NE	12.9	<0.0330	7.26	<0.0320	12.1	<0.00900	<6.34	<0.0620	--	--	--
B-202 8-10	8-10'	NE	44.7	<0.0330	24.3	<0.0320	25.9	<0.00900	12.7	<0.0620	--	--	--
B-202 10-12	10-12'	NE	15.2	<0.0330	10.8	<0.0320	15.6	<0.00900	<6.41	<0.0620	--	--	--
B-203 8-10	8-10'	NE	3640	.478	60.1	<.032	25.3	0.011	6.84	<0.0620	--	--	--
B-203 10-12	10-12'	NE	209	.0710	11.9	<.032	13.8	<.009	8.57	<0.0620	--	--	--
B-204 8-10	8-10'	NE	1510	<.033	11.5	<0.0320	24.2	<.009	7.07	<0.0620	--	--	--
B-204 10-12	10-12'	NE	59.6	.086	6.23	<0.0320	14.1	<.009	<6.13	<0.0620	--	--	--
Connecticut RSR Numeric Criteria													
GB PMC (Based on SPLP)			2500 (mass only)	1	NA	13	NA	0.5	NA	0.15	50	(SPLP on)	NA
GB PMC x 20 (Cal. SPLP value)			NA	20	NA	260	NA	10	NA	3	1000	NA	NA
Average Background			NA	10.4	NA	14.6	NA	17.9	NA	17.6	296	NA	NA

Notes:

GB PMC = RSR pollutant mobility criteria for GB groundwater quality areas.

The Connecticut RSRs evaluate PMC values for inorganic parameters with regard to analytical data derived by either SPLP or TCLP extraction.

CTDEP currently allows comparison of analytical data derived by mass extraction to twenty times PMC numeric values as a gross indication of potential SPLP concentrations.

Values in parentheses are repeat soil samples completed 9/28/98 to verify compliance.

SPLP analysis of the above samples is required to determine an actual exceedance of PMC.

TPH values are evaluated under the RSRs with regard to mass analytical data only.

NA = Not applicable.

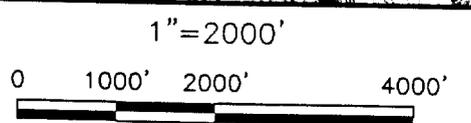
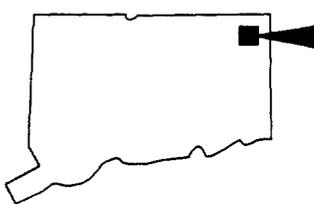
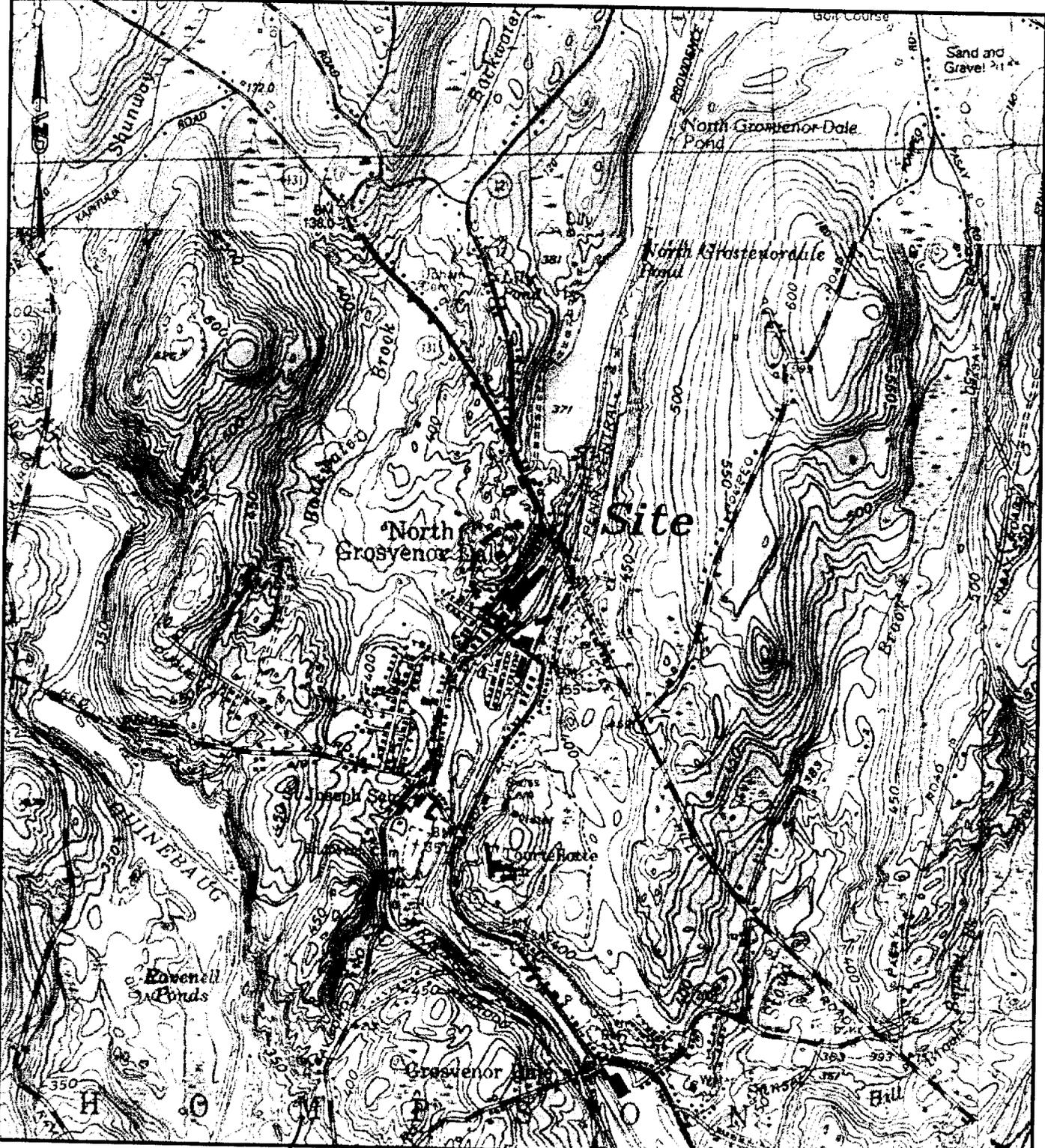
TPH = Total petroleum hydrocarbons analyzed by EPA Test Method 8100.

ft. bgs = Feet below ground surface.

ug/g = Micrograms per gram.

mg/Kg = Milligrams per Kilogram.

FILE: C:\42283.G52\42283-00.C\F\CADD\RCRA\G5200001.DWG



SOURCE: U.S.G.S. PUTNAM, CT QUADRANGLE MAP (1970)



**SANITARY DASH
MANUFACTURING CO.**

NORTH GROSVENOR DALE, CONNECTICUT

**LOCUS PLAN
DRAFT**

9/27/00

FIGURE 1

US EPA New England
RCRA Document Management System (RDMS)
Image Target Sheet

RDMS Document ID# 986

Facility Name: Sanitary Dash Mfg Co Inc

Phase Classification: R-13

Document Title: Environmental Indicator (EI) Determination,
Current Human Exposures Under Control (CA725YE) - Sanitary
Dash Mfg Co Inc

Date of Document: 09-04-2001

Document Type: EI Determination

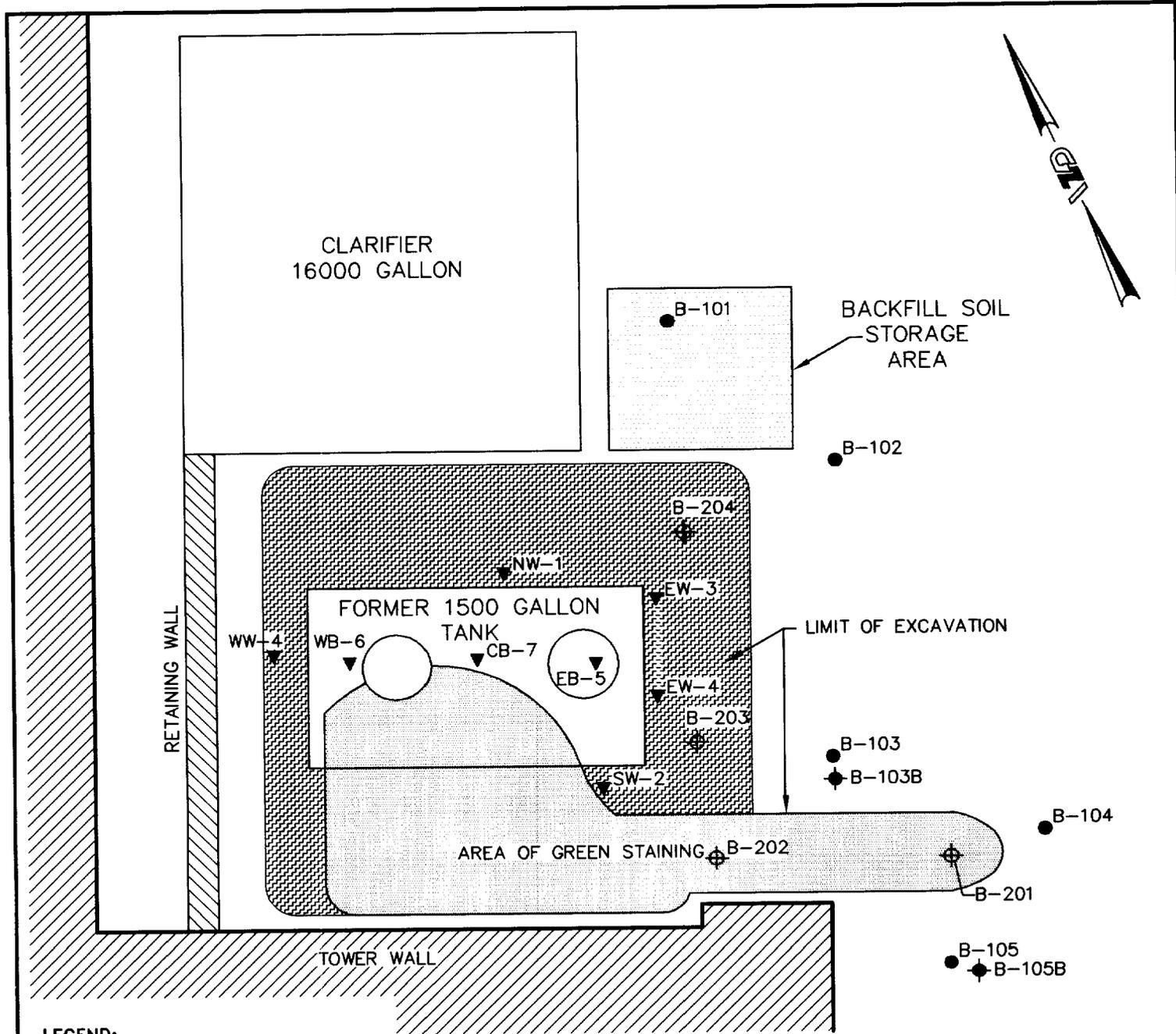
Purpose of Target Sheet:

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Page(s) Missing **Other (Please Provide Purpose
Below)**

Comments: Topographic Plan

* Please Contact the EPA New England RCRA Records Center to View This Document *

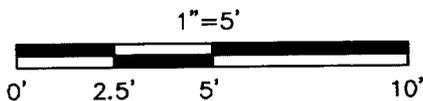


LEGEND:

- ▼ SW-2 SAMPLE LOCATION (APRIL 5, 1994)
- B-101 SAMPLE LOCATION (DECEMBER 15, 1997)
- B-105B NEW SAMPLE LOCATION
- ⊕ B-204 BORINGS TO 12'

NOTES:

- 1) THE LOCATIONS OF THE SAMPLES WERE APPROXIMATELY DETERMINED BY LINE OF SIGHT FROM EXISTING SITE FEATURES. THIS DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
- 2) SAMPLES WERE PERFORMED BY GZA PERSONNEL ON APRIL 5, 1994 AND DECEMBER 15, 1997.



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SANITARY DASH
NORTH GROSVENORALE, CONNECTICUT

SOIL SAMPLE LOCATIONS
1,500-GALLON SETTLING TANK
EXCAVATION INVESTIGATION AREA
FEBRUARY, 1998 FIGURE NO. 5

US EPA New England
RCRA Document Management System (RDMS)
Image Target Sheet

RDMS Document ID# 986

Facility Name: Sanitary Dash Mfg Co Inc

Phase Classification: R-13

Document Title: Environmental Indicator (EI) Determination,
Current Human Exposures Under Control (CA725YE) - Sanitary
Dash Mfg Co Inc

Date of Document: 09-04-2001

Document Type: EI Determination

Purpose of Target Sheet:

Oversized **Privileged**

Page(s) Missing **Other** (Please Provide Purpose
Below)

Comments: Map of Dust Collector and Shipping/ Receiving Areas
Investigation

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ATTACHMENT 2

CTDEP FISH TISSUE DATA, COLLECTED FROM MISC. SITES
SORTED BY SPECIES

----- COMMON*NAME=WHITE SUCKER -----
(continued)

OBS	LAB NUMBER	WATERBODY	TOWN	DATE	SAMPLE TYPE	PORTION	LENGTH in.	WEIGHT g.	MERCURY mg/kg	LEAD mg/kg	CADMIUM mg/kg	ARSENIC mg/kg	NICKEL mg/kg	CHROMIUM mg/kg	COPPER mg/kg	ZINC mg/kg
51	36324	FENTON RIVER	WILLINGTON	26NOV84	DISCRETE	REMAINS	15.75	745.0	0.120	0.48	0.50	.	0.00	0.00	2.50	23.0
52	36326	FENTON RIVER	WILLINGTON	26NOV84	DISCRETE	REMAINS	13.75	460.0	0.090	0.23	0.50	.	0.00	0.00	2.50	16.0
53	36328	FENTON RIVER	WILLINGTON	26NOV84	DISCRETE	REMAINS	12.50	365.0	0.100	0.13	0.50	.	0.00	0.00	2.00	17.0
54	47869	FENTON RIVER	WILLINGTON	03APR85	DISCRETE	REMAINS	8.25	111.0	0.030	2.20	0.15	.	0.75	0.40	0.50	9.9
55	47871	FENTON RIVER	WILLINGTON	03APR85	DISCRETE	REMAINS	7.50	86.0	0.040	2.30	0.15	.	1.10	0.45	0.35	20.0
56	47886	FENTON RIVER	WILLINGTON	03APR85	DISCRETE	REMAINS	14.50	572.0	0.130	1.50	0.10	.	0.50	0.25	0.30	8.8
57	47888	FENTON RIVER	WILLINGTON	03APR85	DISCRETE	REMAINS	8.50	123.0	0.190	2.30	0.15	.	0.70	0.45	0.40	17.0
58	47890	FENTON RIVER	WILLINGTON	03APR85	DISCRETE	REMAINS	7.50	84.0	0.120	1.70	0.15	.	0.70	0.35	0.30	19.0
59	47896	FENTON RIVER	WILLINGTON	03APR85	DISCRETE	REMAINS	18.00	1168.0	0.190	1.20	0.10	.	0.45	0.15	0.25	15.0
60	47898	FENTON RIVER	WILLINGTON	03APR85	DISCRETE	REMAINS	17.00	1085.0	0.200	0.90	0.10	.	0.30	0.10	0.20	10.0
61	47900	FENTON RIVER	WILLINGTON	03APR85	DISCRETE	REMAINS	14.50	561.0	0.210	1.90	0.15	.	0.70	0.35	0.40	13.0
62	47902	FENTON RIVER	WILLINGTON	03APR85	DISCRETE	REMAINS	11.50	258.0	0.180	2.20	0.15	.	0.75	0.45	0.40	17.0
63	36305	FENTON RIVER	WILLINGTON	26NOV84	COMPOSITE	WHOLE	.	.	0.160	0.59	0.00	.	1.50	0.00	1.50	17.0
64	36315	FENTON RIVER	WILLINGTON	26NOV84	COMPOSITE	WHOLE	.	.	0.190	0.13	0.50	.	1.50	0.00	3.00	9.5
65	24121	FENTON RIVER	WILLINGTON	04JUL84	DISCRETE	WHOLE	5.60	33.0	0.650	8.50	0.25	.	0.00	0.23	1.30	14.0
66	24122	FENTON RIVER	WILLINGTON	04JUL84	DISCRETE	WHOLE	5.20	25.0	0.800	3.00	0.00	.	0.00	0.00	0.50	9.3
67	47873	FENTON RIVER	WILLINGTON	03APR85	DISCRETE	WHOLE	4.75	21.0	0.060	1.80	0.15	.	0.65	0.40	0.40	12.0
68	47892	FENTON RIVER	WILLINGTON	03APR85	DISCRETE	WHOLE	7.50	87.0	0.220	1.60	0.10	.	0.50	0.30	0.30	12.4
69	29374	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	17.00	970.0	0.270	0.01	0.05	.	0.25	0.00	1.50	4.0
70	29375	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	18.00	1255.0	0.160	0.08	0.05	.	0.00	0.25	1.80	5.3
71	29376	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	16.00	852.0	0.130	0.09	0.05	.	0.00	0.00	1.50	4.0
72	29377	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	16.00	869.0	0.140	0.01	0.10	.	0.00	0.00	1.50	4.8
73	47315	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	18.60	1108.0	0.150	0.34	0.02	.	0.10	0.00	0.08	9.3
74	47316	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	16.10	641.0	0.220	0.44	0.04	.	0.10	0.00	0.26	8.9
75	47317	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	13.40	431.5	0.070	0.28	0.04	.	0.06	0.00	0.16	6.3
76	47318	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	14.50	486.1	0.060	0.26	0.02	.	0.06	0.00	0.16	6.2
77	47319	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	12.00	345.1	0.050	0.44	0.04	.	0.06	0.00	0.10	5.8
78	47320	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	10.60	207.1	0.040	0.44	0.02	.	0.06	0.00	0.08	6.6
79	47326	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	20.00	1507.0	0.110	0.30	0.02	.	0.00	0.00	0.14	8.2
80	47327	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	19.80	271.5	0.080	0.48	0.02	.	0.06	0.02	0.14	7.0
81	47328	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	13.10	382.9	0.060	0.36	0.02	.	0.04	0.00	0.15	6.8
82	29397	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	WHOLE	18.25	1203.0	0.130	0.12	0.10	.	0.25	0.00	1.50	5.0
83	22090298	QUADUCK BROOK	KILLINGLY	19JUL89	COMPOSITE	SCALED FILLET	.	.	0.050	0.28	0.04	.	0.18	0.06	0.34	6.1
84	18521	FARMINGTON RIVER	COLEBROOK	08AUG83	DISCRETE	SKINNED FILLET	10.50	190.0	0.170	0.50	0.10	.	0.50	0.00	0.50	7.2
85	18522	FARMINGTON RIVER	COLEBROOK	08AUG83	DISCRETE	SKINNED FILLET	9.00	130.0	0.130	0.00	0.10	.	0.50	0.00	0.40	8.2
86	18523	FARMINGTON RIVER	COLEBROOK	08AUG83	DISCRETE	SKINNED FILLET	8.70	120.0	0.100	0.00	0.10	.	0.40	0.00	0.30	9.5
87	18524	FARMINGTON RIVER	COLEBROOK	08AUG83	DISCRETE	SKINNED FILLET	7.50	80.0	0.100	0.00	0.10	.	0.40	0.00	0.30	7.6
88	18518	FARMINGTON RIVER	COLEBROOK	14AUG83	DISCRETE	SKINNED FILLET	7.50	110.0	0.470	0.10	0.10	.	0.40	0.00	0.40	13.0
89	18519	FARMINGTON RIVER	COLEBROOK	14AUG83	DISCRETE	SKINNED FILLET	8.00	160.0	0.500	0.50	0.10	.	0.50	0.00	0.40	5.3
90	18520	FARMINGTON RIVER	COLEBROOK	14AUG83	DISCRETE	SKINNED FILLET	7.50	110.0	0.470	0.30	0.10	.	0.50	0.00	0.40	4.8
91	18516	SANDY BROOK	COLEBROOK	08JUL83	DISCRETE	SKINNED FILLET	8.00	160.0	.	.	.	.	.	.	.	.
92	27724	QUINNIPIAC RIVER	MERIDEN	07DEC82	COMPOSITE	SKINNED FILLET	.	.	0.160	1.30	0.15	.	0.30	0.20	1.00	7.1
93	27722	QUINNIPIAC RIVER	MERIDEN	07DEC82	DISCRETE	SKINNED FILLET	14.25	.	0.230	11.00	0.15	.	0.20	0.10	0.90	4.1
94	27726	QUINNIPIAC RIVER	MERIDEN	07DEC82	DISCRETE	SKINNED FILLET	11.00	.	0.046	1.60	0.16	.	0.20	0.10	0.50	5.1
95	27728	QUINNIPIAC RIVER	MERIDEN	07DEC82	DISCRETE	SKINNED FILLET	11.00	.	0.048	1.70	0.17	.	0.20	0.20	0.30	4.9
96	27730	QUINNIPIAC RIVER	MERIDEN	07DEC82	DISCRETE	SKINNED FILLET	8.25	.	0.058	1.70	0.14	.	0.70	0.20	0.50	7.2
97	27734	QUINNIPIAC RIVER	MERIDEN	07DEC82	DISCRETE	SKINNED FILLET	14.00	.	0.160	7.40	0.13	.	0.00	0.20	0.10	3.8
98	27736	QUINNIPIAC RIVER	MERIDEN	07DEC82	DISCRETE	SKINNED FILLET	9.00	.	0.036	6.80	0.12	.	0.00	0.10	0.00	4.5
99	26872	QUINNIPIAC RIVER	MERIDEN	09JAN83	DISCRETE	SKINNED FILLET	.	.	0.180	0.20	0.10	.	0.20	0.00	0.40	6.3

CTDEP FISH TISSUE DATA, COLLECTED FROM MISC. SITES
SORTED BY SPECIES

COMMON*NAME=YELLOW PERCH

OBS	LAB NUMBER	WATERBODY	TOWN	DATE	SAMPLE TYPE	PORTION	LENGTH in.	WEIGHT g.	MERCURY mg/kg	LEAD mg/kg	CADMIUM mg/kg	ARSENIC mg/kg	NICKEL mg/kg	CHROMIUM mg/kg	COPPER mg/kg	ZINC mg/kg
180	36323	FENTON RIVER	WILLINGTON	26NOV84	DISCRETE	SKINNED FILLET	9.25	164.0	0.260	0.19	0.00	.	0.00	0.00	1.50	5.5
181	36322	FENTON RIVER	WILLINGTON	26NOV84	DISCRETE	REMAINS	9.25	164.0	0.120	0.17	0.00	.	1.50	0.00	5.50	12.0
182	36321	FENTON RIVER	WILLINGTON	26NOV84	DISCRETE	WHOLE	7.25	90.0	0.180	0.83	0.00	.	0.50	0.00	2.50	11.0
183	22126606	DODGE POND	EAST LYME	10OCT91	DISCRETE	SCALED FILLET	9.50	170.0	0.300	0.55	.	0	.	.	.	.
184	22126607	DODGE POND	EAST LYME	10OCT91	DISCRETE	SCALED FILLET	9.25	141.6	0.500	0.55	.	0	.	.	.	.
185	22126608	DODGE POND	EAST LYME	10OCT91	DISCRETE	SCALED FILLET	9.25	170.0	0.430	0.45	.	0	.	.	.	.
186	22126609	DODGE POND	EAST LYME	10OCT91	DISCRETE	SCALED FILLET	9.50	170.0	0.390	0.50	.	0	.	.	.	.
187	22126610	DODGE POND	EAST LYME	10OCT91	DISCRETE	SCALED FILLET	9.25	141.6	0.410	0.45	.	0	.	.	.	.
188	22126611	DODGE POND	EAST LYME	10OCT91	DISCRETE	SCALED FILLET	9.25	113.3	0.430	0.35	.	0	.	.	.	.
189	22126612	DODGE POND	EAST LYME	10OCT91	DISCRETE	SCALED FILLET	9.00	113.3	0.460	0.60	.	0	.	.	.	.
190	22126613	DODGE POND	EAST LYME	10OCT91	DISCRETE	SCALED FILLET	9.00	113.3	0.340	0.45	.	0	.	.	.	.
191	29383	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	8.75	132.0	0.100	0.00	0.08	.	0.25	0.00	0.75	3.8
192	29384	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	9.25	166.0	0.150	0.00	0.13	.	0.25	0.00	1.00	4.3
193	29385	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	9.75	203.0	0.100	0.00	0.10	.	0.25	0.00	1.00	4.8
194	29386	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	8.75	116.0	0.070	0.00	0.13	.	0.00	0.00	0.75	3.5
195	29387	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	9.25	177.0	0.130	0.03	0.13	.	0.25	0.00	1.00	5.0
196	29388	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	8.50	113.0	0.110	0.01	0.10	.	0.25	0.00	1.00	4.0
197	29352	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	10.75	270.0	0.060	0.00	0.05	.	0.75	0.00	0.75	4.3
198	29353	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	10.75	306.0	0.150	0.02	0.03	.	0.50	0.00	1.00	4.8
199	29354	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	10.00	228.0	0.150	0.04	0.03	.	0.50	0.00	1.30	4.0
200	29355	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	9.75	239.0	0.110	0.06	0.00	.	0.25	0.00	0.75	4.0
201	29356	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	9.75	239.0	0.090	0.00	0.00	.	0.00	0.00	0.75	3.3
202	29357	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	9.50	218.0	0.090	0.09	0.03	.	0.50	0.00	1.00	5.3
203	47307	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	10.20	195.3	0.070	0.62	0.04	.	0.14	0.06	0.08	11.0
204	47308	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	8.80	127.5	0.090	0.62	0.04	.	0.16	0.02	0.10	14.0
205	47321	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	8.20	107.4	0.060	0.70	0.04	.	0.18	0.06	0.10	11.0
206	47322	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	8.50	116.9	0.040	0.38	0.04	.	0.12	0.02	0.10	9.8
207	47323	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	9.10	136.8	0.070	0.40	0.04	.	0.14	0.02	0.04	12.0
208	47329	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	10.00	229.0	0.080	0.28	0.02	.	0.08	0.02	0.08	5.6
209	47330	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	8.70	135.5	0.070	0.40	0.02	.	0.08	0.00	0.06	4.7
210	22090296	QUADUCK BROOK	KILLINGLY	19JUL89	COMPOSITE	SCALED FILLET	.	.	0.040	0.34	0.04	.	0.18	0.04	0.30	9.0
211	27718	QUINNIPIAC RIVER	MERIDEN	07DEC82	COMPOSITE	SKINNED FILLET	6.25	.	0.088	0.20	0.16	.	0.30	0.60	1.20	8.3
212	27709	QUINNIPIAC RIVER	MERIDEN	07DEC82	COMPOSITE	REMAINS	6.00	.	.	.	.	.	.	.	.	.
213	27715	QUINNIPIAC RIVER	MERIDEN	07DEC82	COMPOSITE	REMAINS	7.00	.	0.018	1.10	0.30	.	1.00	1.20	2.60	25.0
214	22094113	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	9.30	172.4	0.060	0.36	0.04	.	0.08	0.00	0.28	11.0
215	22094114	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	9.00	140.6	0.050	0.44	0.04	.	0.08	0.04	0.26	9.8
216	22094115	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	7.80	113.4	0.040	0.28	0.04	.	0.08	0.04	0.32	10.0
217	22094116	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	9.00	172.4	0.100	0.36	0.02	.	0.10	0.06	0.18	13.0
218	22094117	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	11.50	285.8	0.060	0.40	0.02	.	0.14	0.08	0.22	12.0
219	22094118	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	8.80	113.4	0.040	0.40	0.02	.	0.12	0.08	0.22	12.0
220	22094119	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	9.30	172.4	0.050	0.34	0.02	.	0.14	0.06	0.14	13.0
221	22094120	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	7.50	113.4	0.050	0.56	0.04	.	0.12	0.04	0.20	11.0
222	22094121	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	9.00	113.4	0.050	0.28	0.02	.	0.12	0.06	0.08	8.0
223	22094122	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	9.00	140.6	0.030	0.26	0.02	.	0.16	0.10	0.24	11.0
224	16199	HOUSATONIC RIVER	BROOKFIELD	10JUN86	DISCRETE	SCALED FILLET	8.50	116.0	0.110	0.24	0.04	.	0.62	0.04	0.50	11.0
225	16200	HOUSATONIC RIVER	BROOKFIELD	10JUN86	DISCRETE	SCALED FILLET	8.50	129.0	0.030	0.30	0.06	.	0.48	0.06	0.54	14.0
226	16201	HOUSATONIC RIVER	BROOKFIELD	10JUN86	DISCRETE	SCALED FILLET	8.00	115.0	0.040	0.34	0.03	.	0.90	0.03	0.60	13.0
227	16202	HOUSATONIC RIVER	BROOKFIELD	10JUN86	DISCRETE	SCALED FILLET	9.00	140.0	0.150	0.25	0.05	.	0.83	0.05	0.48	11.0
228	16203	HOUSATONIC RIVER	BROOKFIELD	10JUN86	DISCRETE	SCALED FILLET	8.25	116.0	0.070	0.22	0.06	.	0.28	0.00	0.65	9.3
229	16204	HOUSATONIC RIVER	BROOKFIELD	10JUN86	DISCRETE	SCALED FILLET	8.24	118.0	0.130	0.23	0.05	.	0.43	0.03	0.30	8.7

CTDEP FISH TISSUE DATA, COLLECTED FROM MISC. SITES
SORTED BY SPECIES

----- COMMON*NAME=SUNFISH -----

OBS	LAB NUMBER	WATERBODY	TOWN	DATE	SAMPLE TYPE	PORTION	LENGTH in.	WEIGHT g.	MERCURY mg/kg	LEAD mg/kg	CADMIUM mg/kg	ARSENIC mg/kg	NICKEL mg/kg	CHROMIUM mg/kg	COPPER mg/kg	ZINC mg/kg
328	36314	FENTON RIVER	WILLINGTON	26NOV84	COMPOSITE	WHOLE	.	.	0.350	0.14	0.50	.	1.50	0.00	1.50	14.0
329	29390	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	5.75	75.0	0.050	0.04	0.08	.	0.25	1.80	1.00	6.3
330	29391	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	5.75	73.0	0.090	0.07	0.13	.	0.50	0.00	1.00	9.3
331	29392	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	5.25	58.0	0.100	0.05	0.15	.	0.00	0.00	1.00	6.3
332	29394	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	5.50	73.0	0.050	0.06	0.10	.	0.00	0.00	1.00	6.5
333	29378	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	7.00	167.0	0.070	0.09	0.18	.	0.50	0.00	0.75	4.3
334	29379	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	8.00	159.0	0.180	0.00	0.10	.	0.25	0.25	1.30	4.8
335	29380	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	7.50	168.0	0.140	0.02	0.08	.	0.00	0.00	0.75	5.3
336	29381	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	7.50	172.0	0.440	0.03	0.08	.	0.50	0.00	0.75	4.3
337	29382	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	6.50	115.0	0.070	0.05	0.08	.	0.50	0.00	1.30	5.5
338	47331	FRENCH RIVER	THOMPSON	16OCT87	COMPOSITE	SCALED FILLET	6.40	145.1	0.160	0.44	0.02	.	0.10	0.02	0.04	7.3
339	47309	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	7.70	120.0	0.170	0.66	0.04	.	0.14	0.06	0.10	9.4
340	47310	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	7.60	114.7	0.170	0.80	0.04	.	0.18	0.02	0.10	11.0
341	47311	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	8.00	128.2	0.260	0.54	0.04	.	0.20	0.02	0.12	9.9
342	47312	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET*	7.60	131.8	0.150	0.52	0.04	.	0.18	0.32	0.08	9.3
343	47313	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	7.20	112.6	0.070	0.48	0.04	.	0.16	0.02	0.06	8.3
344	47314	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	7.50	107.0	0.140	0.64	0.04	.	0.16	0.08	0.10	11.0
345	29389	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	WHOLE	6.75	105.0	0.110	0.01	0.08	.	0.50	0.00	1.50	7.5
346	29393	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	WHOLE	5.25	69.0	0.070	0.07	0.10	.	0.25	0.00	1.50	7.3
347	29396	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	WHOLE	7.00	134.0	0.120	0.21	0.13	.	0.25	0.00	1.00	4.8
348	22090299	QUADUCK BROOK	KILLINGLY	19JUL89	COMPOSITE	SCALED FILLET	.	.	0.060	0.34	0.04	.	0.24	0.06	0.42	8.0
349	27719	QUINNIPIAC RIVER	MERIDEN	07DEC82	COMPOSITE	REMAINS	5.75	.	0.052	0.40	0.19	.	0.60	1.10	1.40	21.0
350	23975	NAUGATUCK RIVER	TORRINGTON	22AUG83	DISCRETE	SKINNED FILLET	7.75	145.0	0.230	0.20	0.10	.	0.20	0.00	0.40	7.0
351	26857	NAUGATUCK RIVER	WATERBURY	24AUG83	DISCRETE	SKINNED FILLET	5.00	49.8	0.020	0.18	0.09	.	0.53	0.00	1.40	7.0
352	26849	NAUGATUCK RIVER	ANSONIA	31AUG83	DISCRETE	SKINNED FILLET	5.50	77.0	0.030	0.28	0.09	.	0.46	0.00	0.37	6.6
353	26870	NAUGATUCK RIVER	WATERTOWN	25AUG83	COMPOSITE	REMAINS	.	.	0.080	2.00	0.40	.	1.20	0.60	5.80	27.0
354	26856	NAUGATUCK RIVER	WATERBURY	24AUG83	COMPOSITE	WHOLE	.	.	0.020	1.30	0.18	.	0.73	0.45	5.30	21.0
355	26855	NAUGATUCK RIVER	WATERBURY	24AUG83	DISCRETE	WHOLE	4.50	25.5	0.030	0.87	0.10	.	0.77	0.29	0.87	28.0

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CTDEP FISH TISSUE DATA, COLLECTED FROM MISC. SITES
SORTED BY SPECIES

----- COMMON*NAME=BULLHEAD -----

OBS	LAB NUMBER	WATERBODY	TOWN	DATE	SAMPLE TYPE	PORTION	LENGTH in.	WEIGHT g.	MERCURY mg/kg	LEAD mg/kg	CADMIUM mg/kg	ARSENIC mg/kg	NICKEL mg/kg	CHROMIUM mg/kg	COPPER mg/kg	ZINC mg/kg
408	24128	FENTON RIVER	WILLINGTON	04JUL84	COMPOSITE	WHOLE	.	.	0.27	3.80	0.00	.	0.00	0.03	0.50	6.00
409	22126614	DODGE POND	EAST LYME	10OCT91	DISCRETE	SKINNED FILLET	12.00	396.6	0.14	0.25	.	0	.	.	.	.
410	22126615	DODGE POND	EAST LYME	10OCT91	DISCRETE	SKINNED FILLET	10.00	226.6	0.10	0.20	.	0	.	.	.	.
411	29399	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	12.80	422.0	0.05	10.00	0.20	.	0.25	0.00	1.50	6.30
412	29400	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	11.80	329.0	0.04	0.14	0.08	.	0.00	0.00	1.80	5.50
413	29401	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	11.80	382.0	0.05	0.24	0.08	.	0.25	0.00	1.00	2.80
414	29402	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	11.50	276.0	0.06	0.02	0.10	.	0.25	0.00	1.00	3.00
415	29403	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	11.80	367.0	0.08	0.07	0.18	.	0.50	0.00	1.00	4.00
416	29404	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	12.50	456.0	0.06	0.04	0.13	.	0.00	0.00	1.00	3.00
417	29405	FRENCH RIVER	THOMPSON	19SEP84	DISCRETE	SKINNED FILLET	12.00	367.0	0.05	0.07	0.40	.	28.00	1.00	1.30	4.80
418	29365	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	12.00	337.0	0.06	0.00	0.03	.	0.50	0.00	1.00	2.80
419	29366	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	12.75	561.0	0.05	0.00	0.05	.	0.75	0.00	1.30	4.00
420	29367	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	12.00	354.0	0.04	0.00	0.05	.	0.50	0.00	1.50	5.00
421	29368	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	11.50	320.0	0.04	0.03	0.03	.	0.50	0.00	1.30	5.50
422	29369	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	11.00	391.0	0.05	0.00	0.10	.	0.75	0.00	1.30	4.50
423	29370	FRENCH RIVER	THOMPSON	20SEP84	DISCRETE	SKINNED FILLET	11.50	332.0	0.06	0.07	0.05	.	0.75	0.00	1.80	4.30
424	47324	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	12.40	381.1	0.13	0.34	0.02	.	0.10	0.02	0.12	3.40
425	47325	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	15.00	269.2	0.28	0.26	0.02	.	0.02	0.00	0.08	3.80
426	47332	FRENCH RIVER	THOMPSON	16OCT87	DISCRETE	SCALED FILLET	11.20	291.7	0.06	0.20	0.02	.	0.02	0.00	0.16	4.80
427	22094123	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	10.00	226.8	0.08	0.28	0.00	.	0.08	0.04	0.28	4.20
428	22094124	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	9.50	199.6	0.14	0.24	0.02	.	0.06	0.02	0.18	3.30
429	22094125	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	9.50	172.4	0.06	0.40	0.00	.	0.12	0.08	0.20	4.40
430	22094126	EIGHTMILE RIVER	SOUTHINGTON	20OCT89	DISCRETE	SCALED FILLET	7.25	113.4	0.07	0.28	0.00	.	0.08	0.08	0.20	3.40
431	16205	HOUSATONIC RIVER	BROOKFIELD	10JUN86	DISCRETE	SKINNED FILLET	13.00	494.0	0.17	0.18	0.02	.	0.36	0.00	0.40	3.60
432	16206	HOUSATONIC RIVER	BROOKFIELD	10JUN86	DISCRETE	SKINNED FILLET	13.00	.	0.17	0.20	0.02	.	0.42	0.02	0.52	3.80
433	16207	HOUSATONIC RIVER	BROOKFIELD	10JUN86	DISCRETE	SKINNED FILLET	13.25	550.0	0.13	0.12	0.00	.	0.12	0.02	0.16	0.94
434	16208	HOUSATONIC RIVER	BROOKFIELD	10JUN86	DISCRETE	SKINNED FILLET	12.75	503.0	0.10	0.16	0.03	.	0.27	0.00	0.35	3.20
435	16209	HOUSATONIC RIVER	BROOKFIELD	10JUN86	DISCRETE	SKINNED FILLET	12.50	442.0	0.11	0.58	0.10	.	0.90	0.03	0.99	28.00
436	16210	HOUSATONIC RIVER	BROOKFIELD	10JUN86	DISCRETE	SKINNED FILLET	12.50	419.0	0.07	0.20	0.03	.	1.10	0.00	0.45	4.10
437	22065085	NAUGATUCK RIVER	WATERTOWN	20JUL88	COMPOSITE	SKINNED FILLET	.	.	.	.	.	.	.	.	.	.
438	26850	NAUGATUCK RIVER	WATERBURY	24AUG83	DISCRETE	SKINNED FILLET	7.50	101.5	0.03	0.19	0.09	.	0.38	0.00	0.57	4.90
439	26851	NAUGATUCK RIVER	WATERBURY	24AUG83	DISCRETE	SKINNED FILLET	7.50	101.5	0.03	0.20	0.10	.	0.60	0.00	0.60	5.70
440	26869	NAUGATUCK RIVER	WATERTOWN	25AUG83	DISCRETE	SKINNED FILLET	.	.	0.05	1.40	0.10	.	0.48	0.19	0.58	8.90
441	22065076	NAUGATUCK RIVER	WATERTOWN	20JUL88	DISCRETE	SKINNED FILLET	12.75	515.0	0.02	0.26	0.08	.	0.18	0.06	0.44	5.20
442	22065077	NAUGATUCK RIVER	WATERTOWN	20JUL88	DISCRETE	SKINNED FILLET	9.50	198.0	0.09	0.23	0.07	.	0.27	0.03	0.47	4.90
443	22065078	NAUGATUCK RIVER	WATERTOWN	20JUL88	DISCRETE	SKINNED FILLET	10.00	243.0	0.08	0.23	0.03	.	0.37	0.13	0.90	5.50
444	22065079	NAUGATUCK RIVER	WATERTOWN	20JUL88	DISCRETE	SKINNED FILLET	11.00	322.0	0.15	0.70	0.02	.	0.16	0.02	0.44	5.50
445	22065080	NAUGATUCK RIVER	WATERTOWN	20JUL88	DISCRETE	SKINNED FILLET	12.75	534.0	0.02	0.22	0.04	.	0.20	0.02	0.60	5.10

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FIGURE 1

French River

CT-MA BOUNDARY TO MECHANICSVILLE, CT
BIOLOGICAL SURVEY SAMPLING SITES

