Appendix A

HEC-2 Modeling Results

This Appendix contains the input and output files of seven individual HEC-2 modeling runs. Provided in the table below is a brief description of the information which follows.

File	File Description
I. Building 68 Assessment	
1. 100 year dat	Assessment of the effects of sheetpile on river hydraulics.
II. Restoration Assessment	
2 Hrexist	The current conditions base model used to assess effects of removal, replacement, and restoration activities.
3. Hrafter	The model used to simulate conditions after removal, replacement, and restoration activities, after sedimentation has occurred and returned the channel roughness to its pre-remedial conditions.

The remaining portions of this Appendix (i.e., model output) have been provided to Mssrs. Olsen and Tagliaferro of the USEPA and Mr. Palermo of the USACOE. This information is available to others upon request.

Appendix B

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Analysis of USEPA and GE Split Analytical Data

Appendix B

Analysis of USEPA and GE Split Analytical Data

1. Introduction

This appendix presents the results of a comparison of analytical data reported for split sediment and soil samples collected by the United States Environmental Protection Agency (USEPA) and the General Electric Company (GE) during August - October 1998. The samples were collected from sediments and riverbank soils in the Upper ½-Mile Reach of the Housatonic River in Pittsfield, Massachusetts. The samples were submitted for analysis of various constituents listed in 40 CFR Part 264 [including polychlorinated biphenyls (PCBs), semivolatile organic compounds (SVOCs), polychlorinated dibenzo-p-dioxins (PCDDs), polychlorinated dibenzofurans (PCDFs), pesticides, herbicides, and inorganic parameters], plus three additional constituents (benzidine, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine), hereafter referred to as Appendix IX+3. The USEPA used Roy F. Weston Engineers and Consultants, Inc., for analysis of all their samples, and GE used Northeast Analytical Inc., Schenectady, New York (for PCB analysis) and Quanterra, Inc., Pittsburgh, Pennsylvania (for Appendix IX+3 analysis).

The analytical results for each class of compounds were evaluated by plotting the data reported by USEPA against the analytical results reported by GE. Although sediment and riverbank soil samples were often submitted to the laboratories and analyzed in the same batches, the data were compared separately (i.e., separate evaluations for sediment samples and riverbank samples). In the sections that follow, a comparison is provided of the analytical results reported by the two laboratories for the riverbank and sediment split samples.

The USEPA PCB and Appendix IX+3 analytical data have been validated; however, the level of validation (Tier II or Tier III) is not known. The GE PCB and Appendix IX+3 data have been subjected to the data validation process in accordance with the SAP/DCAQAPP.

2. Comparison of Analytical Results

Split samples collected from the river bank and river sediments were submitted concurrently to GE's and USEPA's laboratories for analysis of PCBs, SVOCs, PCDDs/PCDFs, Pesticides/Herbicides, and Inorganics. Figures B-1 through B-9 present comparisons of the concentrations of the various constituents reported by the laboratories. In each figure, the concentrations of all detected constituents analyzed as part of a particular scan are plotted on a logarithmic scale. Concentrations reported by the USEPA's laboratory are plotted on the horizontal axis, while concentrations reported by GE's laboratory are plotted on the vertical axis. Analytical results are plotted in series of up to three symbols,

representing different categories of reporting limits. For a sample in which both laboratories reported a value greater than the instrument detection level (DL), the data point is plotted as a filled diamond. For a sample in which the USEPA laboratory reported a value greater than the DL and GE's laboratory reported a value of not detected (ND), the data point is plotted as an open square. For a sample in which the USEPA laboratory reported a value of ND and GE's laboratory reported a value greater than the DL, the data point is plotted as an open triangle. Note that a value of one-half the DL was used when plotting a non-detect data point. Analytical results for a constituent in which both laboratories reported a value as ND are not included.

In addition, three diagonal lines are plotted on each figure. The middle, dashed line represents a 1:1 line, indicating equal concentrations reported by the GE and USEPA laboratories. As a guide for comparison, the solid lines have been plotted to represent values at which the relative percent difference (RPD) between the GE and USEPA reported concentrations would equal 100 percent. Thus, data points plotted on the figures located between the two solid lines have RPDs less than 100 percent, and data points located outside of the solid lines have RPDs greater than 100 percent. Although guidelines have not been established for comparing analytical results from different laboratories, during typical data validation, field duplicate sample results would be evaluated and flagged as estimated concentrations at values for which the RPD between the duplicate samples is greater than 50 percent. The samples compared here were analyzed at different laboratories using slightly different methods. Thus, the inherent variability between the samples would tend to be greater than typical field duplicate samples, and an RPD at 100 percent has been used for comparison.

PCBs

Figures B-1 and B-2 present comparisons of the reported Total PCB concentrations from split samples obtained from riverbank soils (112 sets) and river sediments (55 sets), respectively, along the first ½-mile of the upper reach of the Housatonic River. As shown on the figures, a majority of the split sample analyses are within 100 percent of each other. It is notable that, in many instances, split samples with RPDs greater than 100 percent are those where at least one of the samples are reported as not detected.

As previously mentioned, validation of the laboratory data packages for the GE and USEPA data has been completed. After this review, it was determined that there are no apparent deficiencies in the GE laboratory's QA/QC procedures, and there is no reason to suspect the validity of the reported analytical results. Therefore, it is concluded that soil/sediment heterogeneity and differences in laboratory processes and procedures are most likely the cause of the differing analytical results, and no consistent bias in the reported results are evident from one laboratory compared to

another. Possible causes for differences in detection levels may include extraction methodology, volume of soil extracted, and final extract volume.

SVOCs

Figures B-3 and B-4 present comparisons of the reported SVOC concentrations from split samples obtained from riverbank soils (23 sets) and sediments (13 sets). As shown on the figures, the vast majority of the split sample analyses are within 100 percent of each other. It is notable that split samples with RPDs greater than 100 percent are typically those where at least one of the samples were reported as not detected.

PCDDs/PCDFs

Figures B-5 and B-6 present comparisons of the reported PCDDs/PCDFs concentrations from split samples obtained from riverbank soils (23 sets) and sediments (13 sets). Split sample results for this class of compounds show a wider range of differences between split samples. Upon further evaluation of the data, it was determined that the majority of split data results with high RPDs were from three samples (the riverbank soil sample collected from transect T024, location SL0452 on September 9, 1998 at a depth of 0-0.5 feet, the sediment sample collected from transect T031, location SD0312 on September 9, 1998 at a depth of 1.5-2.0 feet and the sediment sample collected from transect T020, location SD010202 on September 29, 1998 at a depth of 0.5-1.0 feet.)

Pesticides and Herbicides

Figure B-7 presents a comparison of the reported pesticide/herbicide concentrations from 23 sets of split riverbank soil samples. As shown on the figure, only one analysis from one split sample had a detected value in both split samples. The remaining analytical results indicate that the differences in reported concentrations of the compounds are due primarily to different detection levels of non-detected compounds.

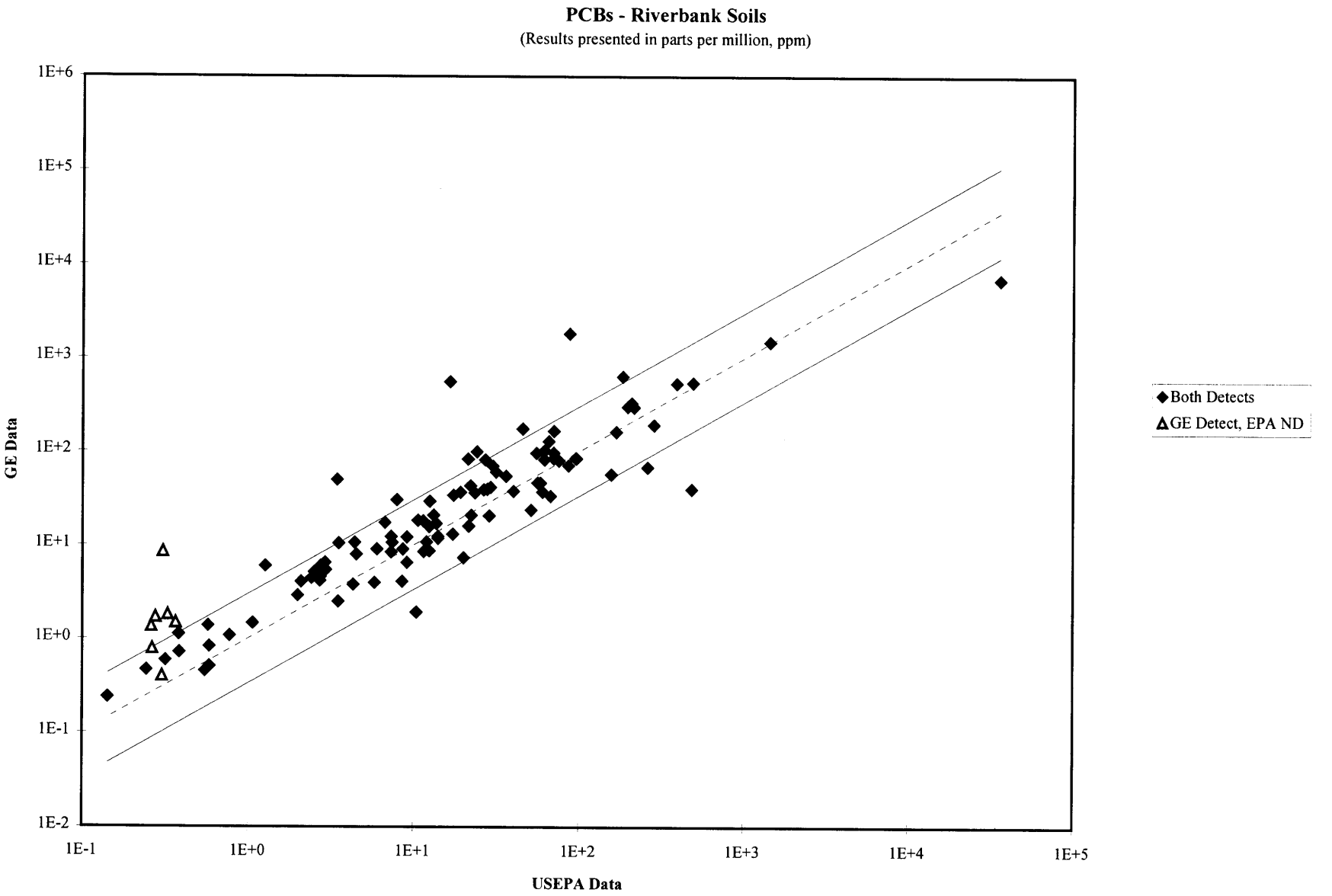
Inorganics

Figures B-8 and B-9 present comparisons of the reported inorganic concentrations (including those of cyanide and sulfide) from split samples obtained from riverbank soil (23 sets) and sediments (13 sets). As shown on the figures, the majority of analyses with detected analytes in both split samples show close agreement. As with the previously described compounds, differences greater than 100 percent RPD are prevalent when one split sample is at a non-detected level.

3. Summary

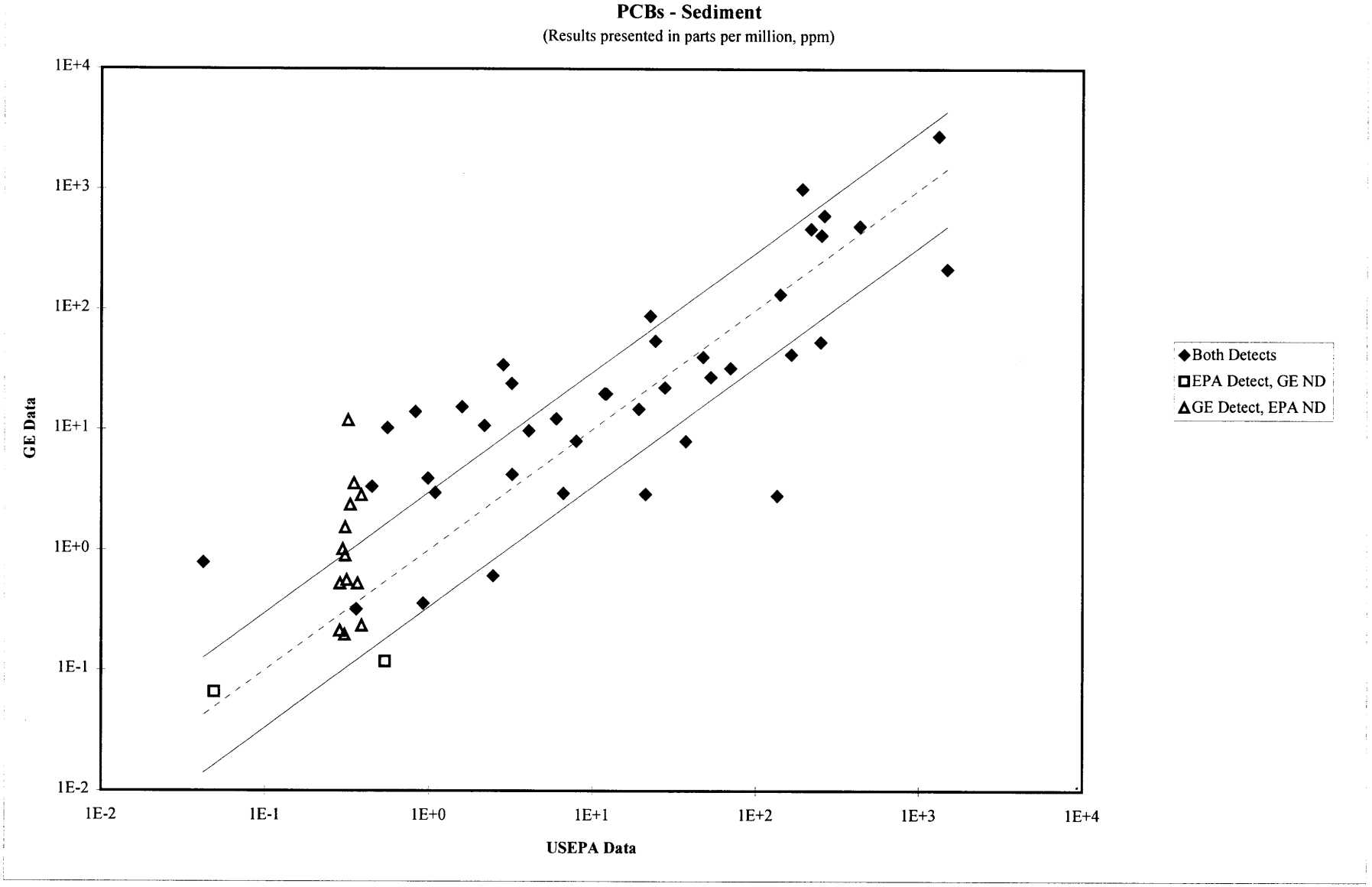
Comparison of the analytical data reported for the split sediment and riverbank soil samples collected by the USEPA and GE indicates relatively good correlation. Although some outliers were noted, a QA/QC review of GE's PCB data indicates there is no reason to suspect the validity of the reported analytical results. Based on this assessment, differing analytical results are likely due to soil/sediment heterogeneity and differences in laboratory procedures. As such, GE split sample results will be used in calculating the sediment and riverbank soil spatial averages by averaging them with USEPA's results.

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
REMOVAL ACTION WORK PLAN - UPPER REACH OF HOUSATONIC RIVER



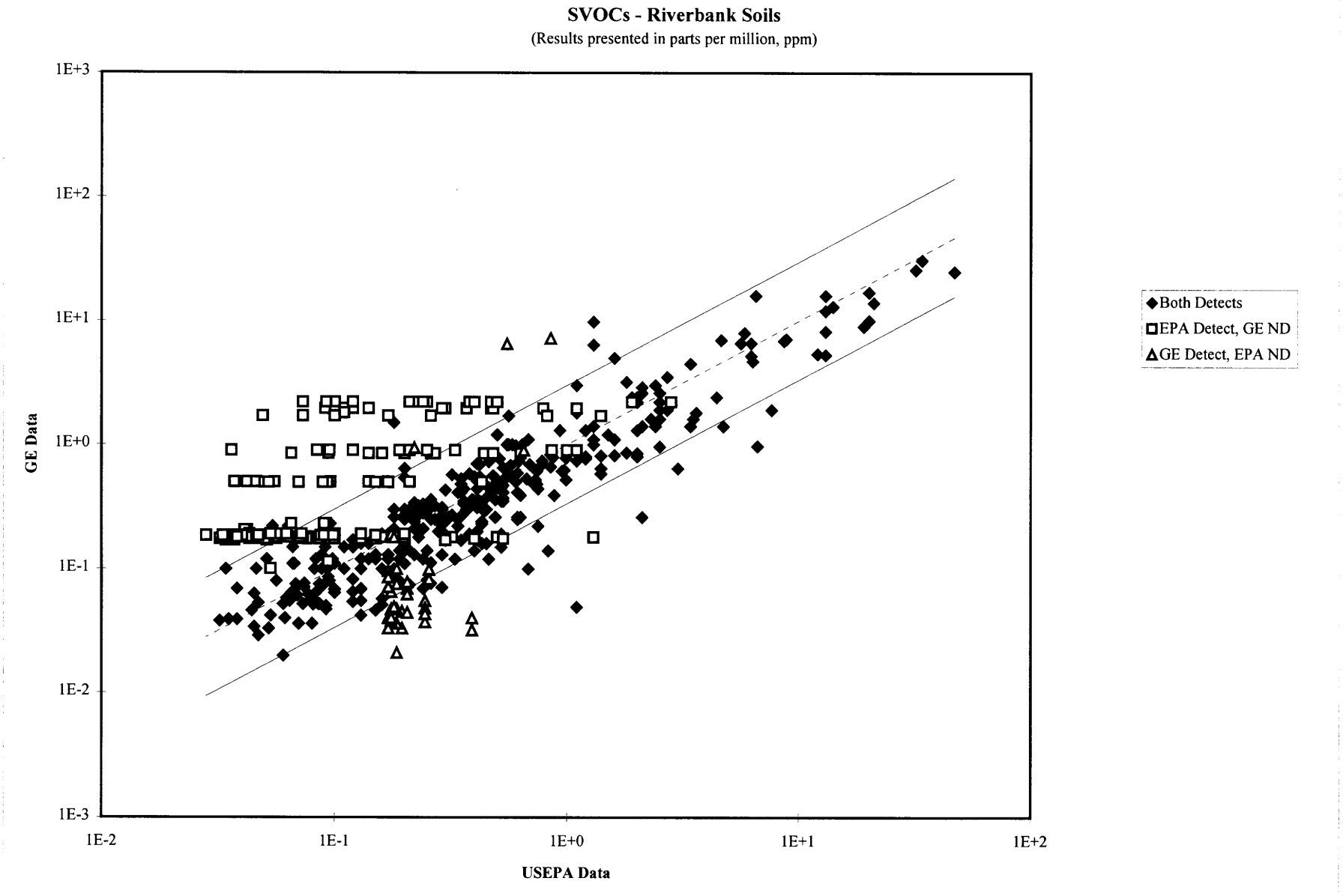
Note: A value of one-half the DL was used when a value was reported as ND.

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER



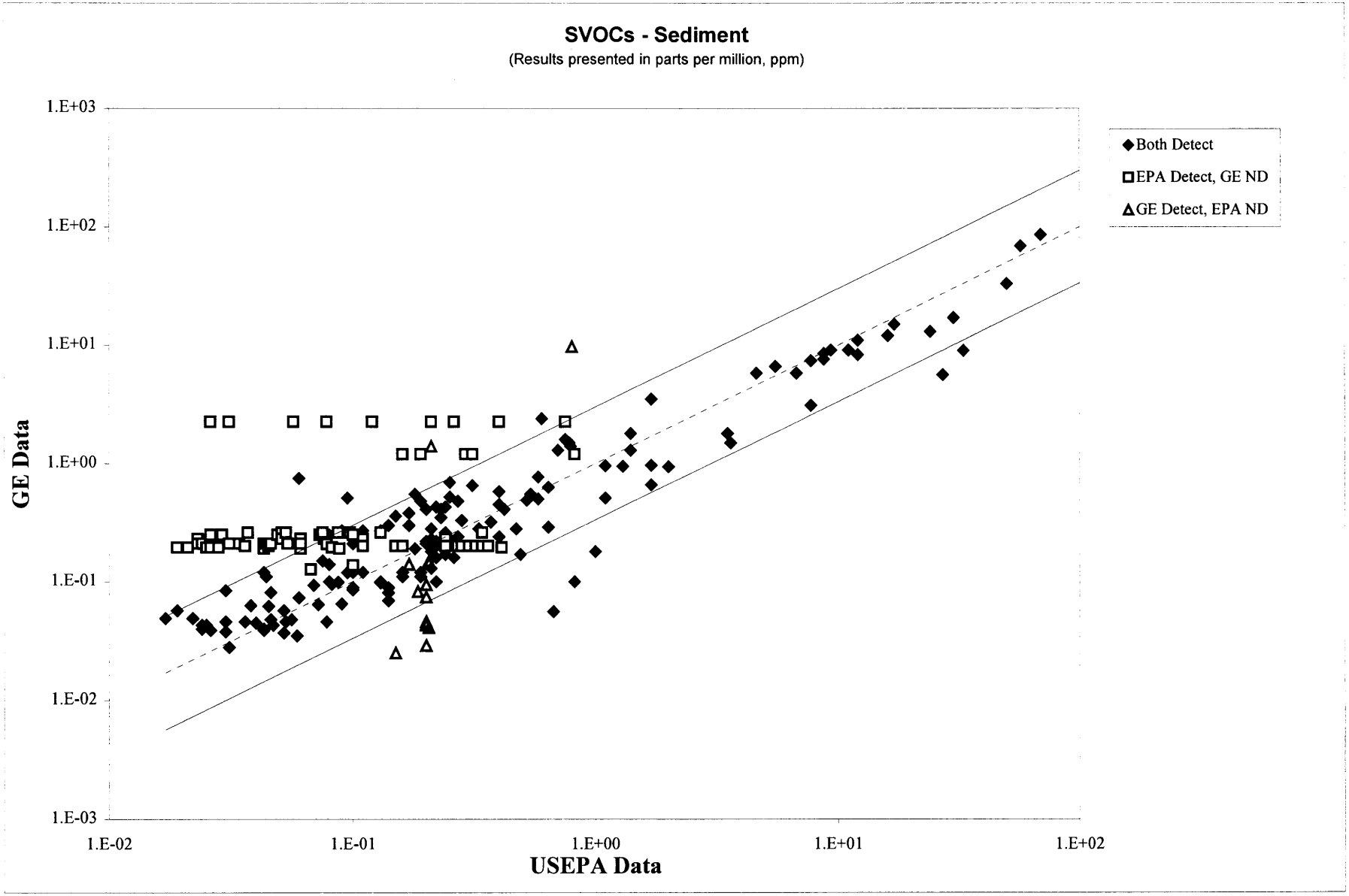
Note: A value of one-half the DL was used when a value was reported as ND.

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
REMOVAL ACTION WORK PLAN - UPPER REACH OF HOUSATONIC RIVER

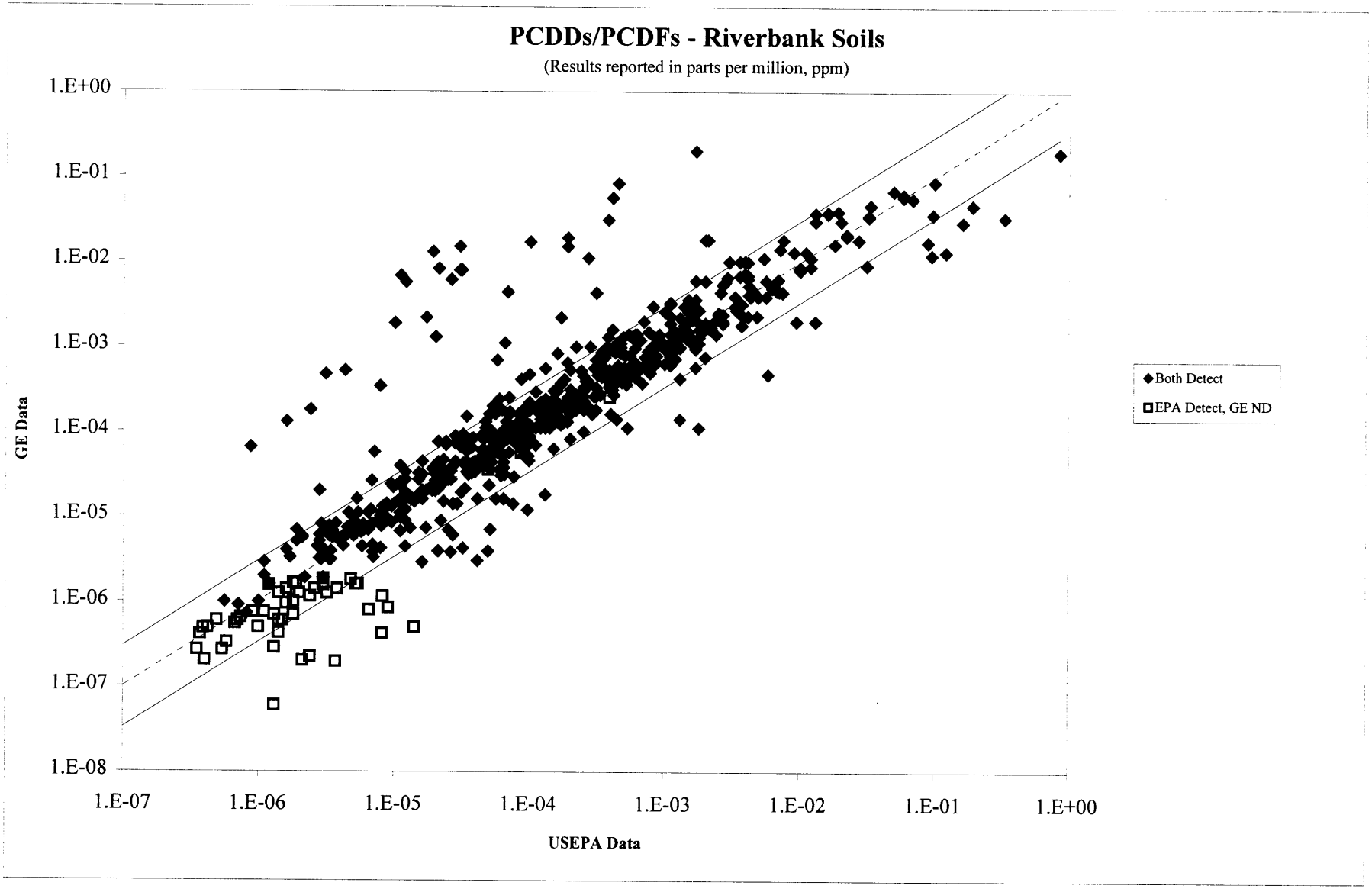


Note: A value of one-half the DL was used when a value was reported as ND.

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
REMOVAL ACTION WORK PLAN - UPPER REACH OF HOUSATONIC RIVER

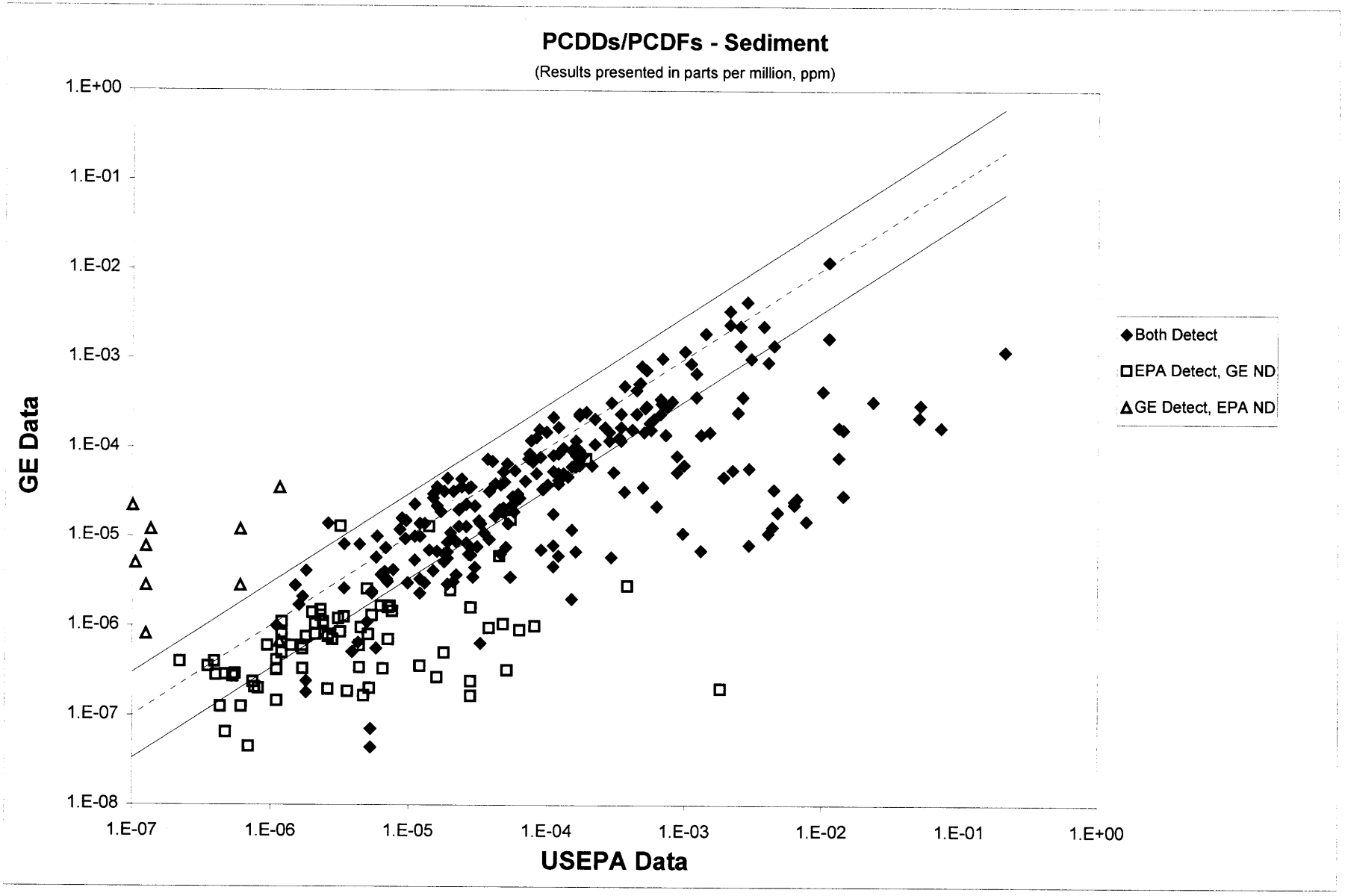


Note: A value of one-half the DL was used when a value was reported as ND.



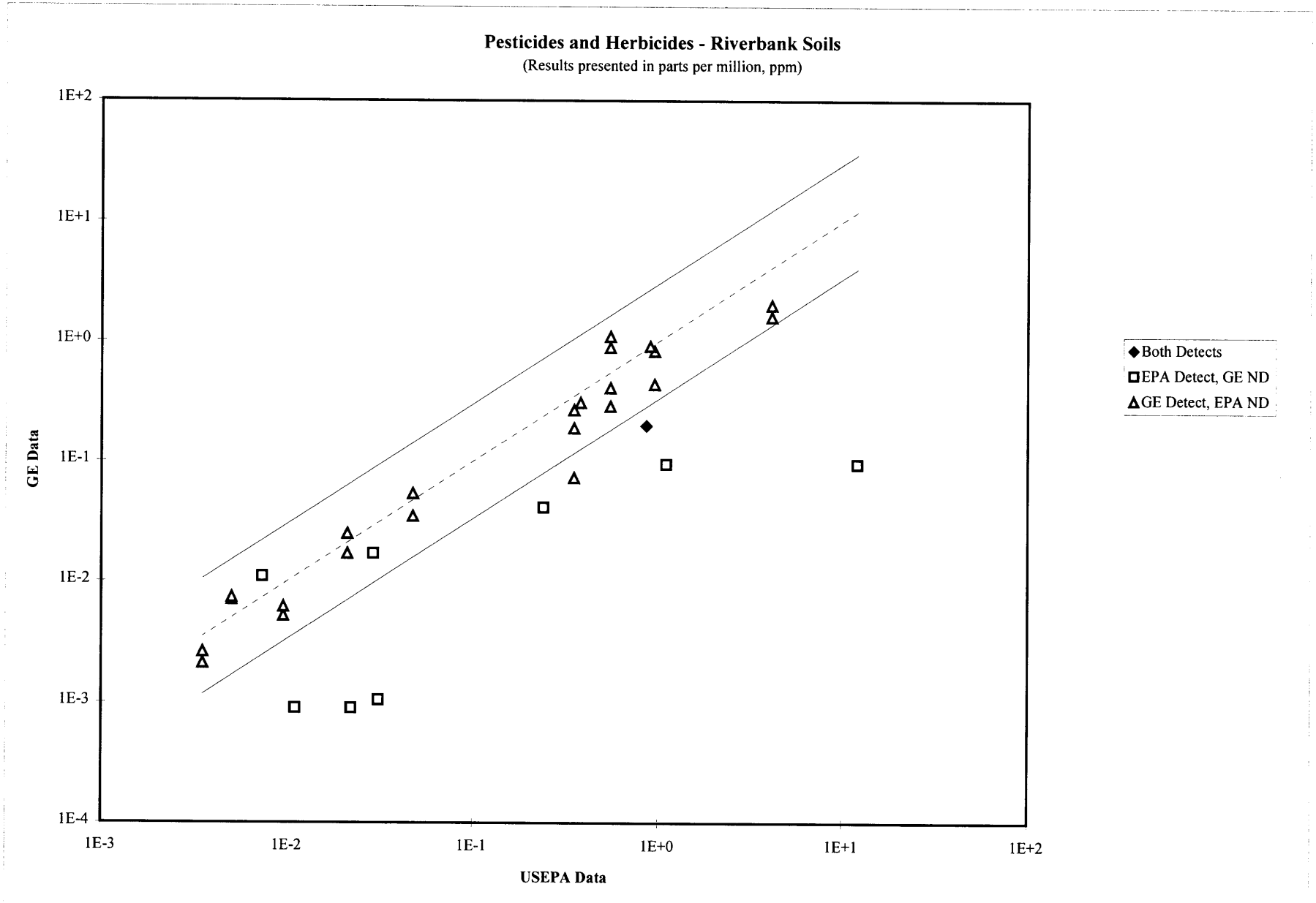
Note: A value of one-half the DL was used when a value was reported as ND.

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
REMOVAL ACTION WORK PLAN - UPPER REACH OF HOUSATONIC RIVER

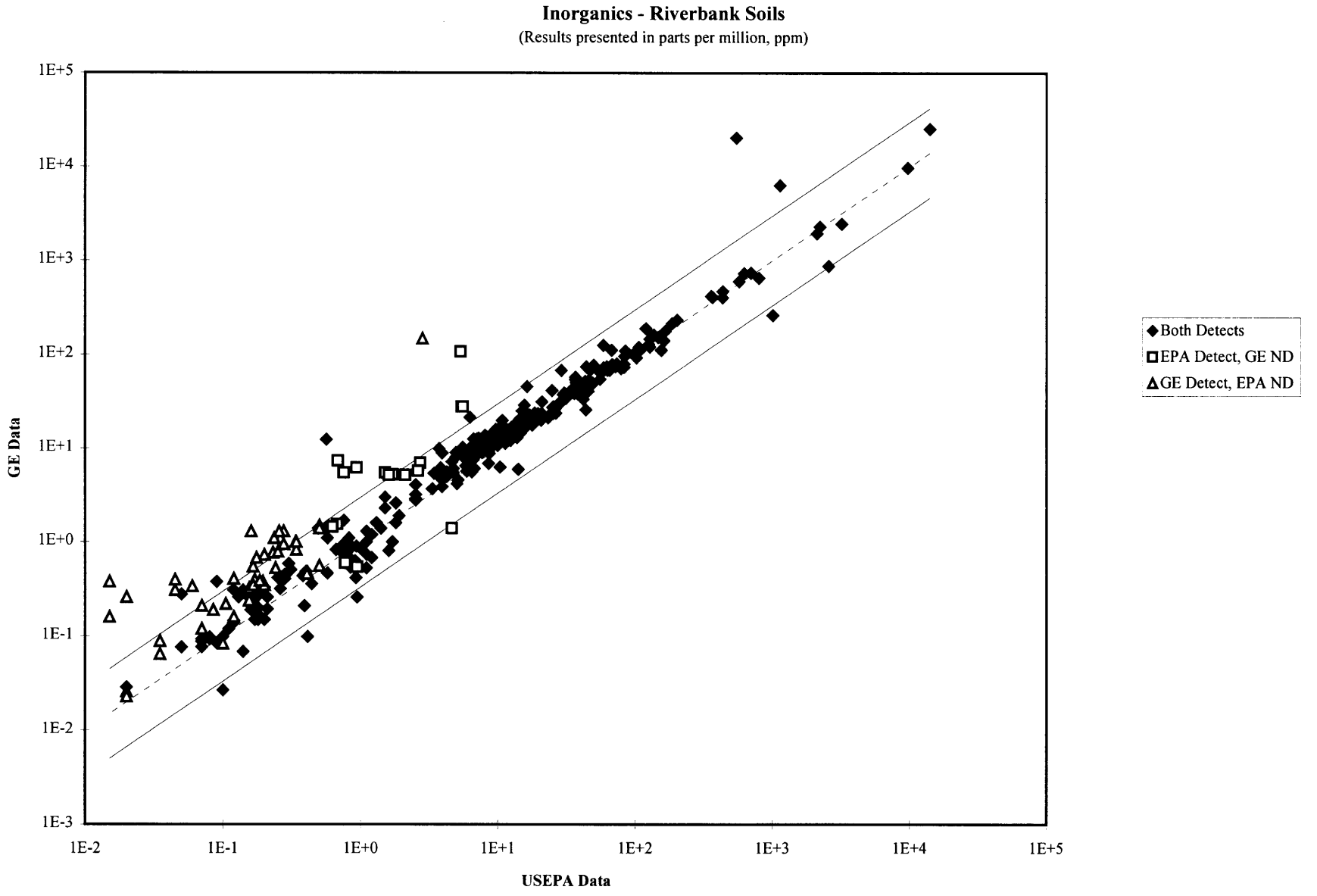


Note: A value of one-half the DL was used when a value was reported as ND.

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
REMOVAL ACTION WORK PLAN - UPPER REACH OF HOUSATONIC RIVER

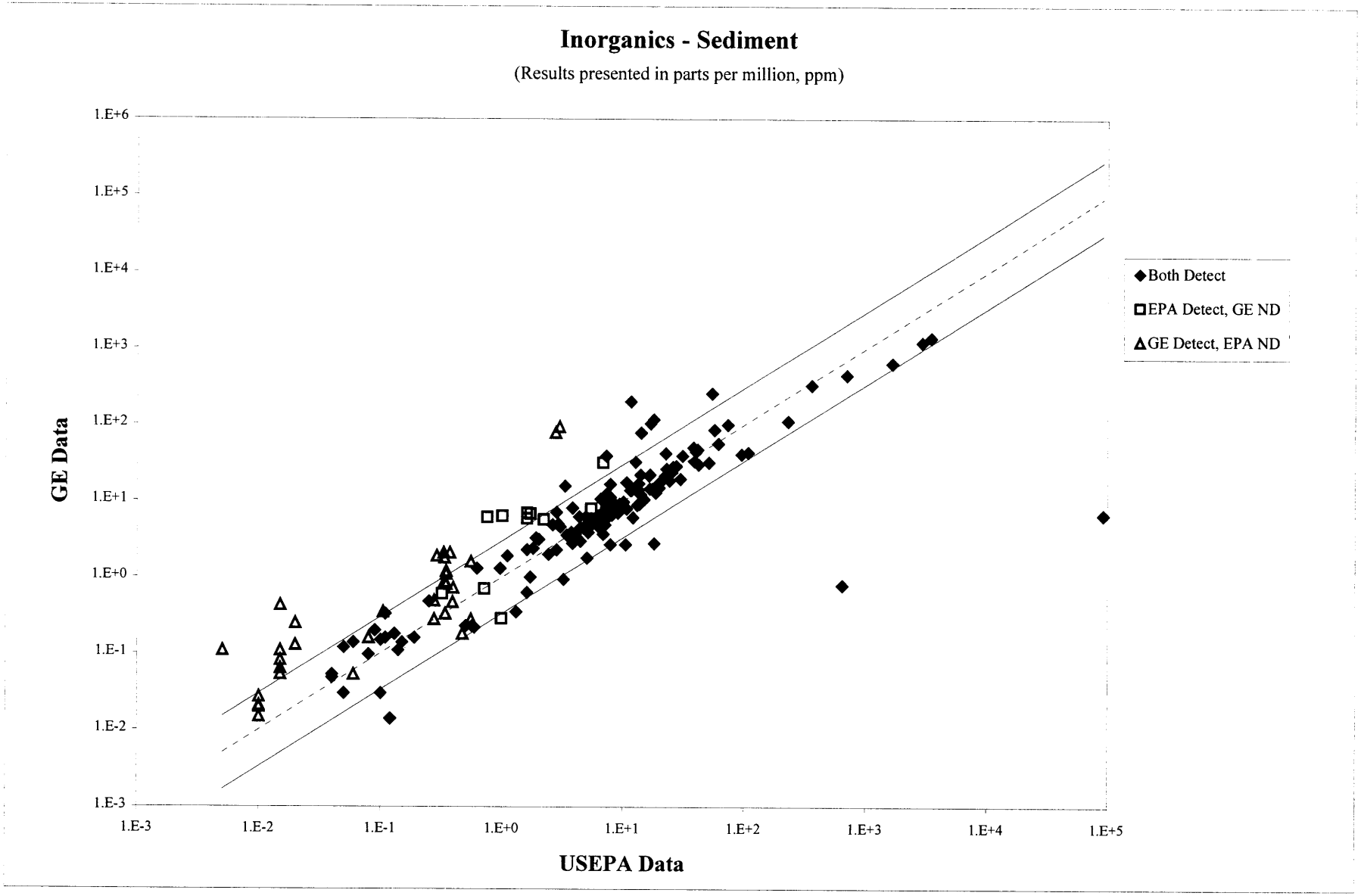


Note: A value of one-half the DL was used when a value was reported as ND.



Note: A value of one-half the DL was used when a value was reported as ND.

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
REMOVAL ACTION WORK PLAN - UPPER REACH OF HOUSATONIC RIVER



Note: A value of one-half the DL was used when a value was reported as ND.

Appendix C

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Sediment Removal Calculations and Assumptions

Appendix C

Sediment Removal Calculations and Assumptions

1.0 Introduction

This Appendix describes the general procedure that was used by GE to determine the areas of sediment removal in the Upper ½-Mile Reach of the Housatonic River. As part of the removal-determination process, spatial average PCB concentrations for the sediment under pre- and post-removal conditions were calculated. These calculations are presented in this Appendix, along with sediment removal volume calculations.

2.0 Description of Sediment Removal Approach

In general, the approximate removal and replacement limits for sediment were developed in conjunction with USEPA and MDEP, based on a detailed review of the relative concentration of PCBs present in both the River sediments and adjacent bank soils.

The initial step in designating sediment removal areas involved generating Thiessen polygons for all locations from which sediment samples were collected in the ½-Mile Reach. Thiessen polygon mapping involves the use of computer software to draw perpendicular bisector lines between adjacent sample locations to create two-dimensional, sample-specific polygon areas. Polygons for the river sediments are provided in Figures 4-1 through 4-4.

To determine the extent and depth of sediment proposed for removal, the analytical data were plotted on a map, to better understand the distribution of PCBs in the sediment. During several meetings with USEPA, MDEP, and GE representatives, the sediment removal extent and depth were agreed upon for each polygon, based on an evaluation of spatial and vertical trends in PCB concentration.

The sediment removal areas and depths proposed to reduce PCB concentrations and improve overall habitat quality in the ½-Mile Reach are depicted in Figures 4-1 through 4-4.

Surficial spatial average PCB concentration calculations and assumptions are provided for the sediment removal scenario described above, in the sections that follow. Sediment removal volumes also are provided.

3.0 Description of Spatial Averaging Approach and Existing Spatial Average PCB Concentration

As part of the sediment removal determination process, spatial averaging was performed to determine the overall effectiveness of the removal scenario in reducing the concentration of surficial (0-1 foot) PCBs in the ½-Mile Reach. The spatial averaging approach used by GE consists of an averaging technique that is area weighted. The basis for the spatial averaging approach described below is the initial characterization of a given area using Thiessen polygons. This approach has been used by GE to identify removal areas at other sites in Pittsfield requiring response actions, and has been approved by USEPA and MDEP for use at those sites.

As mentioned above, a Thiessen polygon map was generated for the surficial river sediments in the ½-Mile Reach (0-1 foot depth interval). After the generation of the Thiessen polygons, the area of each polygon was calculated using computer software.

The next step in the calculation of spatial average PCB concentrations involved the development of a computer spreadsheet to combine the results of the Thiessen polygon analysis and the laboratory PCB sediment data. The computer spreadsheet combined information obtained from the Thiessen polygon mapping (i.e., area for each polygon) with the analytical results of sediment sampling to provide a three-dimensional characterization of the sediments associated with each polygon. The depth-weighted PCB average concentration for the upper one foot of each sample point was considered the concentration of the entire polygon (0-1 foot) drawn around that point.

Using the information described above, a spatial average PCB concentration was derived for the ½-Mile Reach by first multiplying the area of each polygon by its assigned PCB concentration, summing the results of this calculation for each polygon involved in the evaluation, and then dividing that sum by the cumulative sediment area. By performing these functions, the current calculated spatial average for the surficial river sediments (0-1 foot) in the Upper ½-Mile Reach is 54.8 ppm (excluding data collected as part of source control activities at East Street Area 2). Refer to Table C-1 in this Appendix for existing PCB spatial average calculations.

The data used in the spatial averaging included all existing PCB data for the river sediments in the ½-Mile Reach. Sample points with more than one value, either a duplicate or a split sample, were arithmetically averaged to determine one discrete value for use in calculations. For samples with a value of non-detect, one-half the analytical detection limit was used for calculations. Sediment spatial averaging involved only the top 1-foot of sediments. The 0-0.5 foot and the 0.5-1 foot interval values were averaged together to determine the concentration for the top 1-foot of sediment. The

0-0.5 foot (or in some cases, less than 0.5 feet) interval value was used to represent the top 1-foot of sediment in locations where no other analytical data were available.

4.0 Post-Removal Spatial Average PCB Concentration and Sediment Removal Volume Calculations

Next, the surficial sediment PCB concentrations were assessed following implementation of the sediment removal and replacement activities, to determine the post-removal spatial average PCB concentration for the ½-Mile Reach. The PCB concentrations for each polygon where removal and replacement is proposed were first recalculated, using 0.0375 ppm to represent the concentration of PCBs in backfill. Depth-weighted averaging for each polygon was performed in a manner consistent with that described for the existing spatial average assessment (Section 3.0 above).

Based on the approach described in Section 2.0, the post-removal spatial average PCB concentration in the surficial sediments (0-1 foot) of the ½-Mile Reach was calculated as less than 1 ppm. Refer to Table C-2 in this Appendix for the back-up calculations and Figures 4-1 through 4-4 for removal locations.

Based on the process described above, and including additional removal volume related to the tying-in of the removal and replacement polygons to adjacent non-removal areas and the excavation of sediment adjacent to the East Street Area 2 sheeting (as further described in Section 7), a total of approximately 8,100 in-situ cubic yards of river sediment is targeted for removal. Table C-3 lists the polygons targeted for removal, along with their respective removal depths, areas, and volumes.

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (PRE-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft^2)	Area Weighted Location Avg (0-1 ft)
T001	SD010011	0-0.5	3.41 J [10.1 J]	6.76			
		0.5-1	1479 J {218}	849			
		1-1.5	336	336	428	1441.427	617000
	SD010012	0-0.5	ND(0.623)	0.312			
		0.5-1	ND(0.615) {0.9}	0.604			
		1-1.5	8.82	8.82			
		1.5-2	1.29	1.29	0.458	1203.373	551
	SD010013	0-0.5	ND(0.649)	0.325			
		0.5-1	ND(0.819)	0.410			
		1-1.5	ND(0.596)	0.298	0.368	1245.635	458
T002	SD010021	0-0.5	ND(0.607)	0.304			
		0.5-1	ND(0.591) [ND(0.598)] {1.76 J [0.269 J]}	0.656			
		1-1.5	ND(0.574)	0.287	0.480	935.5566	449
	SD010022	0-0.5	ND(0.667)	0.334			
		0.5-1	ND(0.623)	0.312	0.323	793.3584	256
	SD010023	0-0.5	ND(0.561)	0.281			
		0.5-1	ND(0.604)	0.302			
		1-1.5	0.065 J	0.0650	0.292	944.1245	276
T003	SD010031	0-0.5	ND(0.63)	0.315			
		0.5-1	23.7	23.7			
		1-1.5	ND(0.631)	0.316			
		1.5-2	ND(0.626)	0.313	12.0	820.3291	9840
	SD010032	0-0.5	1.76	1.76			
		0.5-1	31.4 J	31.4			
		1-1.5	19.1 {14.8}	17.0			
		1.5-2	15.4	15.4	16.6	1000.366	16600
	SD010033	0-0.5	ND(0.598)	0.299			
		0.5-1	ND(0.57)	0.285			
		1-1.5	1.11 J	1.11			
		1.5-2	9.49	9.49	0.292	979.8589	286
T004	SD010041	0-0.5	1.77	1.77			
		0.5-1	ND(0.696)	0.348			
		1-1.5	0.586 J	0.586			
		1.5-2	1.73	1.73			
		2-2.5	ND(0.628)	0.314	1.06	1082.074	1150
	SD010042	0-0.5	48.4	48.4			
		0.5-1	25.68	25.7			
		1-1.5	ND(0.635)	0.318	37.1	1159.556	43000
	SD010043	0-0.5	6.62 {2.95}	4.79			
		0.5-1	0.65	0.650			
		1-1.5	ND(0.567)	0.284	2.72	1123.246	3060
T005	SD010051	0-0.5	83.4	83.4			
		0.5-1	69.9	69.9			
		1-1.5	10	10.0	76.7	971.9927	74600
	SD010052	0-0.5	34.3	34.3			
		0.5-1	4.81 J [10.6 J]	7.71			
		1-1.5	1.95	1.95			
		1.5-2	1.36	1.36	21.0	519.5693	10900
	SD010053	0-0.5	ND(0.635)	0.318			
		0.5-1	2.83 {34.6}	18.7			
		1-1.5	3.83 J	3.83			
		1.5-2	ND(0.655)	0.328	9.51	911.5806	8670
T006	SD010061	0-0.5	ND(0.591)	0.296			
		0.5-1	9.08	9.08			
		1-1.5	6	6.00			
		1.5-2	ND(0.707)	0.354	4.69	1192.035	5590
	SD010062	0-0.5	199	199			
		0.5-1	ND(0.785)	0.393			
		1-1.5	10.6 J	10.6			
		1.5-2	4.07 J {9.79}	6.93			
		2-2.5	ND(0.63)	0.315	99.7	658.3369	65600
	SD010063	0-0.5	1.52	1.52			
		0.5-1	ND(0.731)	0.366			
		1-1.5	ND(0.771)	0.386			
		1.5-2	ND(0.647)	0.324	0.943	829.502	782
T007	SD010071	0-0.5	ND(0.599)	0.300			
		0.5-1	0.6 J	0.600			
		1-1.5	3.24	3.24			
		1.5-2	0.338 J	0.338			
		2-2.5	3.44 J	3.44	0.450	1078.628	485

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (PRE-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft²)	Area Weighted Location Avg (0-1 ft)
T007	SD010072	0-0.5	2.98	2.98			
		0.5-1	32.3 J	32.3			
		1-1.5	69.4 J {32.5}	51.0			
		1.5-2	5.94	5.94	17.6	1040.345	18300
	SD010073	0-0.5	ND(0.597)	0.299			
		0.5-1	0.87	0.870			
		1-1.5	1.89 [2.01]	1.95			
		1.5-2	1.12	1.12	0.585	603.2227	353
T008	SD010081	0-0.5	3.228 J {4.23}	3.73			
		0.5-1	31.2 J	31.2			
		1-1.5	1.36 J	1.36	17.5	711.5596	12500
	SD010082	0-0.5	ND(0.623) [ND(0.615)]	0.310			
		0.5-1	ND(0.641)	0.321			
		1-1.5	ND(0.674)	0.337			
		1.5-2	ND(0.731)	0.366	0.316	719.9932	228
	SD010083	0-0.5	3.63 J	3.63			
		0.5-1	66.5 J	66.5			
		1-1.5	14.8 J	14.8			
		1.5-2	ND(0.592)	0.296	35.1	855.9014	30000
T009	SD010091	0-0.5	ND(0.614)	0.307			
		0.5-1	ND(0.636)	0.318	0.313	458.1748	143
	SD010092	0-0.5	0.403 J	0.403			
		0.5-1	ND(0.914)	0.457			
		1-1.5	ND(1)	0.500			
		1.5-2	ND(0.937)	0.469	0.430	542.916	233
	SD010093	0-0.5	ND(0.608)	0.304			
		0.5-1	ND(0.605)	0.303			
		1-1.5	1.95 J	1.95			
		1.5-2	ND(0.732) {0.524}	0.445			
		2-2.5	ND(0.638)	0.319	0.304	840.5889	256
T010	SD010103	0-0.5	0.056 J	0.0560			
		0-0.5 F	ND(1.12)	0.560			
		0.5-1	ND(0.656)	0.328			
		0.5-1 F	ND(0.941)	0.471	0.192	1761.574	338
T011	SD010111	0-0.5	ND(0.606)	0.303			
		0.5-1	ND(0.599)	0.300			
		1-1.5	ND(0.622)	0.311	0.302	872.1484	263
	SD010112	0-0.5	ND(0.585)	0.293			
		0.5-1	ND(0.608) [ND(0.589)]	0.299			
		1-1.5	ND(0.613)	0.307	0.296	612.7456	181
	SD010113	0-0.5	ND(0.641) {11.9}	6.11			
		0.5-1	0.078 J	0.0780			
		1-1.5	ND(0.575)	0.288	3.09	765.3867	2370
T012	SD010121	0-0.5	ND(0.584)	0.292			
		0.5-1	ND(0.572)	0.286	0.289	911.6611	263
	SD010122	0-0.5	ND(0.607) J	0.304			
		0.5-1	21 J {2.91}	12.0			
		1-1.5	15.1	15.1	6.15	830.1177	5110
	SD010123	0-0.5	ND(0.665)	0.333			
		0.5-1	ND(0.643)	0.322			
		1-1.5	ND(0.623)	0.312	0.328	767.3896	252
T013	SD010131	0-0.5	ND(0.578)	0.289			
		0-0.5 F	ND(0.938)	0.469			
		0.5-1	ND(0.573) {0.525}	0.406			
		0.5-1 F	ND(0.744)	0.372	0.348	1143.685	398
	SD010133	0-0.5	0.042 J {0.787}	0.415			
		0-0.5 F	ND(0.804)	0.402			
		0.5-1	ND(0.595)	0.298			
		0.5-1 F	ND(0.802)	0.401	0.357	1161.897	415
T014	SD010141	0-0.5	ND(0.609)	0.305			
		0-0.5 F	ND(1.48)	0.740			
		0.5-1	ND(0.564) {ND(0.127)}	0.173			
		0.5-1 F	ND(1.09)	0.545	0.239	725.2476	173
	SD010142	0-0.5	ND(0.586)	0.293			
		0-0.5 F	4.52	4.52			
		0.5-1	ND(0.565)	0.283			
		0.5-1 F	0.423 J	0.423	0.288	690.0898	199
	SD010143	0-0.5	0.869	0.869			
		0-0.5 F	ND(1.15)	0.575			
		0.5-1	ND(0.566) [ND(0.563)]	0.282			
		0.5-1 F	ND(0.838)	0.419	0.576	902.2251	520

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (PRE-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft^2)	Area Weighted Location Avg (0-1 ft)
T015	SD0151	0-0.5	ND(1.7) [ND(0.59)]	0.573			
		0.5-1	2	2.00	1.29	773.8105	998
	SD0152	0-0.5	ND(0.578)	0.289			
		0-0.5 F	ND(0.5)	0.250			
		0.5-1	0.3 J	0.300			
		0.5-1 F	ND(0.75)	0.375	0.295	595.2642	176
	SD0153	0-0.5	ND(0.579) {ND(0.119)}	0.175			
		0-0.5 F	ND(1.35)	0.675			
		0.5-1	ND(0.576)	0.288			
		0.5-1 F	R	0	0.232	874.4873	203
T016	SD010161	0-0.5	ND(0.594)	0.297			
		0-0.5 F	0.827 J	0.827			
		0.5-1	0.36 J {0.321}	0.341			
		0.5-1 F	ND(0.836)	0.418	0.319	838.8813	268
	SD010162	0-0.5	1.45 [1.21]	1.33			
		0-0.5 F	3.82	3.82			
		0.5-1	0.903 J	0.903			
		0.5-1 F	4.21	4.21	1.12	703.229	788
	SD010163	0-0.5	ND(0.578)	0.289			
		0-0.5 F	ND(0.871)	0.436			
		0.5-1	ND(0.582)	0.291			
		0.5-1 F	0.423 J	0.423	0.290	828.415	240
T017	SD0171	0-0.5	ND(0.56)	0.280			
		0.5-1	ND(0.58)	0.290			
		1-1.5	ND(0.6)	0.300	0.285	945.0708	269
	SD0172	0-0.5	ND(0.6)	0.300			
		0.5-1	ND(0.57)	0.285			
		1-1.5	ND(0.57)	0.285	0.293	797.043	234
	SD0173	0-0.5	ND(0.61)	0.305			
		0.5-1	0.156 J [ND(0.57)]	0.221			
		1-1.5	ND(0.57) {0.212}	0.249			
		1.5-2	ND(0.58)	0.290			
		2-2.5	ND(0.57)	0.285	0.263	931.4077	245
T018	SD010181	0-0.5	6.85	6.85			
		0.5-1	0.795	0.795	3.82	715.3311	2730
	SD010182	0-0.5	0.658	0.658			
		0.5-1	ND(0.579)	0.290			
		1-1.5	ND(0.613)	0.307	0.474	566.7275	269
	SD010183	0-0.5	4.6 J [0.347 J] {0.572 [0.644]}	1.54			
		0.5-1	0.378 J	0.378			
		1-1.5	0.31 J	0.310	0.959	849.0537	814
T019	SD0191	0-0.5	35.4	35.4			
		0.5-1	0.806	0.806	18.1	661.8882	12000
	SD0192	0-0.5	64.1	64.1			
		0.5-1	14.3	14.3	39.2	800.1504	31400
	SD0193	0-0.5	5.78 J	5.78			
		0.5-1	ND(0.616) {1.54}	0.924	3.35	879.4912	2950
T020	SD010201	0-0.5	45.7 [11.9]	28.8			
		0.5-1	47.1	47.1			
		1-1.5	251 {418}	335			
		1.5-2	116	116	38.0	1086.539	41300
	SD010202	0-0.5	ND(0.592)	0.296			
		0.5-1	8.72 J	8.72			
		1-1.5	ND(0.602)	0.301	4.51	1021.03	4600
	SD010203	0-0.5	ND(0.607)	0.304			
		0.5-1	9.49 J	9.49			
		1-1.5	0.514 J	0.514	4.90	852.8901	4180
T021	SD0211	0-0.5	26 J	26.0			
		0.5-1	55.3	55.3			
		1-1.5	2.18 {10.8}	6.49	40.7	641.1704	26100
	SD0212	0-0.5	0.716 J [0.354 J]	0.535			
		0.5-1	3.7	3.70	2.12	890.6509	1890
	SD0213	0-0.5	ND(0.58)	0.290	0.290	946.9263	275
T022	SD010223	0-0.5	ND(0.602)	0.301			
		0.5-1	ND(0.565)	0.283			
		1-1.5	ND(0.585)	0.293	0.292	981.332	287
	SD0221	0-0.5	72.2	72.2			
		0.5-1	337	337			
		1-1.5	191 {1010}	601			
		1.5-2	868	868			
		2-2.5	5756	5760	205	947.2144	194000

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (PRE-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft²)	Area Weighted Location Avg (0-1 ft)
T022	SD0222	0-0.5	ND(0.585)	0.293			
		0.5-1	ND(0.602)	0.301			
		1-1.5	ND(0.652)	0.326			
		1.5-2	ND(0.694)	0.347	0.297	1009.224	300
T023	SD0231	0-0.5	24	24.0			
		0.5-1	430 {498}	464	244	776	189000
	SD0232	0-0.5	15.3	15.3			
		0.5-1	840 J	840			
		1-1.5	194.1	194			
		1.5-2	56.3	56.3	428	529.8	227000
	SD0233	0-0.5	ND(0.601)	0.301			
		0.5-1	ND(0.675)	0.338			
		1-1.5	ND(0.701)	0.351	0.320	580.3096	186
T024	SD0241	0-0.5	8.08 J [7.76 J] {4.82 J [11.2 J]}	7.97			
		0.5-1	3.64	3.64			
		1-1.5	5.86 J	5.86			
		1.5-2	ND(0.613)	0.307	5.81	555	3220
	SD0242	0-0.5	8.57 J	8.57			
		0.5-1	572	572			
		1-1.5	63.2	63.2			
		1.5-2	ND(0.666)	0.333	290	442.1011	128000
	SD0243	0-0.5	ND(0.676)	0.338			
		0.5-1	ND(0.595)	0.298			
		1-1.5	ND(0.592)	0.296			
		1.5-2	ND(0.585)	0.293	0.318	355.2285	113
T025	SD0251	0-0.5	21	21.0			
		0.5-1	2.9	2.90			
		1-1.5	ND(0.63)	0.315			
		1.5-2	ND(0.63) {0.559}	0.437	12.0	985.5	11800
	SD0252	0-0.5	11.2 J [13.9 J]	12.6			
		0.5-1	ND(0.64)	0.320			
		1-1.5	ND(0.64)	0.320			
		1.5-2	ND(0.66)	0.330	6.46	1081.4	6990
	SD0253	0-0.5	ND(0.59)	0.295			
		0.5-1	ND(0.61)	0.305			
		1-1.5	ND(0.56)	0.280	0.300	962.5352	289
T026	SD0261	0-0.5	ND(0.582)	0.291			
		0.5-1	ND(0.584)	0.292	0.292	918.98	268
	SD0262	0-0.5	47.2 J {40.3}	43.8			
		0.5-1	71.4 J	71.4			
		1-1.5	9.05 J	9.05	57.6	898.5781	51800
	SD0263	0-0.5	3.64 J	3.64			
		0.5-1	2.61 J	2.61	3.13	853.5913	2670
T027	SD0271	0-0.5	51	51.0			
		0.5-1	ND(0.75)	0.375			
		1-1.5	3.2 J {24.1}	13.7			
		1.5-2	0.43 J	0.430			
		2-2.5	ND(0.61)	0.305	25.7	738.6597	19000
	SD0272	0-0.5	19	19.0			
		0.5-1	14.1	14.1			
		1-1.5	0.7 J	0.700			
		1.5-2	ND(0.83)	0.415	16.6	962.0908	16000
	SD0273	0-0.5	ND(0.61)	0.305			
		0.5-1	1	1.00			
		1-1.5	ND(0.62)	0.310	0.653	950.8125	621
T028	SD0281	0-0.5	212 J	212			
		0.5-1	40.5 J	40.5			
		1-1.5	34 J	34.0	126	667.2344	84100
	SD0282	0-0.5	21.3	21.3			
		0.5-1	27.5 {22.4}	25.0			
		1-1.5	2.13	2.13			
		1.5-2	1.06 J	1.06	23.2	901.1094	20900
	SD0283	0-0.5	4.76 J	4.76			
		0.5-1	2.96 J	2.96	3.86	1050.262	4050
T029	SD0291	0-0.5	1.03	1.03			
		0.5-1	ND(0.623)	0.312			
		1-1.5	ND(0.645)	0.323			
		1.5-2	ND(0.637)	0.319	0.671	778.1831	522
	SD0292	0-0.5	2.13	2.13			
		0.5-1	89.4	89.4			
		1-1.5	0.922 {0.358}	0.640	45.8	448.3521	20500

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (PRE-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft²)	Area Weighted Location Avg (0-1 ft)
T029	SD0293	0-0.5	ND(0.609)	0.305			
		0.5-1	91 J [10 J]	50.5			
		1-1.5	7.6	7.60			
		1.5-2	16	16.0	25.4	928.5229	23600
T030	SD0301	0-0.5	39	39.0			
		0.5-1	25	25.0			
		1-1.5	41.4	41.4	32.0	887.8696	28400
	SD0302	0-0.5	ND(0.584) J [1.32 J]	0.806			
		0.5-1	ND(0.567)	0.284			
		1-1.5	1.32	1.32	0.545	812.1377	443
	SD0303	0-0.5	260 J {610}	435			
		0.5-1	58.8 J	58.8			
		1-1.5	224 J	224	247	770.3774	190000
T031	SD0311	0-0.5	5.41	5.41			
		0.5-1	0.907	0.907	3.16	759.3418	2400
	SD0312	0-0.5	ND(0.53)	0.265			
		0.5-1	ND(0.581)	0.291			
		1-1.5	140.2 {134 J}	137			
		1.5-2	93.2 J	93.2	0.278	693.9634	193
	SD0313	0-0.5	ND(0.686)	0.343			
		0.5-1	66.5	66.5			
		1-1.5	20.92 J	20.9	33.4	779.9653	26100
T032	SD0321	0-0.5	ND(0.64)	0.320			
		0.5-1	14.3	14.3			
		1-1.5	200 J	200			
		1.5-2	108 J	108	7.31	889.9941	6510
	SD0322	0-0.5	ND(0.596)	0.298			
		0.5-1	1.26	1.26			
		1-1.5	52.7 {27.3}	40.0			
		1.5-2	3.63	3.63	0.779	763.0796	594
	SD0323	0-0.5	ND(0.585)	0.293			
		0.5-1	ND(0.617)	0.309			
		1-1.5	ND(0.66)	0.330			
		1.5-2	ND(0.622)	0.311	0.301	779.0908	235
T033	SD0331	0-0.5	ND(0.629)	0.315			
		0.5-1	6 J	6.00			
		1-1.5	ND(0.598)	0.299			
		2-2.5	ND(0.632) [ND(0.665)]	0.324	3.16	673.374	2130
	SD0332	0-0.5	31.8	31.8			
		0.5-1	607	607			
		1-1.5	216 {473}	345	319	742.1294	237000
	SD0333	0-0.5	ND(0.535)	0.268			
		0.5-1	ND(0.629)	0.315			
		1-1.5	ND(0.624)	0.312			
		1.5-2	ND(0.614)	0.307	0.292	914.2837	267
T034	SD0341	0-0.5	0.605 J	0.605			
		0.5-1	48.1	48.1			
		1-1.5	12.6	12.6			
		1.5-2	ND(0.62) {ND(0.131)}	0.188			
		2-2.5	ND(0.62)	0.310			
		2.5-3	ND(0.652)	0.326	24.4	171.1309	4180
	SD0342	0-0.5	ND(0.567) [ND(0.565)]	0.283			
		0.5-1	4.65	4.65			
		1-1.5	14.2	14.2	2.47	226.0381	558
	SD0343	0-0.5	ND(0.583)	0.292			
		0.5-1	ND(0.598)	0.299	0.296	836.0283	247
T035	SD0353	0-0.5	ND(0.698)	0.349			
		0.5-1	ND(0.663)	0.332			
		1-1.5	ND(0.777) {0.234}	0.311	0.341	327.1021	112
T036	SD0363	0-0.5	1.83	1.83			
		0.5-1	0.441 J	0.441	1.14	54.10645	61.7
T037	SD0373	0-0.5	1.59 {15.4}	8.50			
		0.5-1	15.93 J	15.9			
		1-1.5	10.1 J	10.1			
		1.5-2	5.74 J	5.74	12.2	138.1763	1690
T038	SD0383	0-0.5	48.2	48.2			
		0.5-1	10.1	10.1			
		1-1.5	2.07	2.07	29.2	157.6455	4600
T039	SD0393	0-0.5	0.985 {3.93}	2.46	2.46	430.7891	1060
T040	SD0403	0-0.5	4.54	4.54	4.54	241.5034	1100

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (PRE-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft²)	Area Weighted Location Avg (0-1 ft)
T041	SD0413	0-0.5	1.03	1.03			
		0.5-1	0.336 J	0.336			
		1-1.5	ND(0.612) {0.197}	0.252	0.683	96.07178	65.6
T042	SD0423	0-0.5	0.448 J {3.35}	1.90	1.90	201.5337	383
T043	SD0433	0-0.5	0.462 J	0.462	0.462	142.6719	65.9
T044	SD0443	0-0.5	6.64	6.64			
		0.5-1	ND(0.584)	0.292			
		1-1.5	ND(0.561)	0.281	3.47	176.6016	613
T045	SD0453	0-0.5	2.65	2.65			
		0.5-1	12.1 {19.8}	16.0			
		1-1.5	ND(0.571)	0.286			
		1.5-2	ND(0.595)	0.298	9.33	287.9736	2690
T046	SD0461	0-0.5	17.4	17.4			
		0.5-1	36.2	36.2			
		1-1.5	1412	1410	26.8	584.3657	15700
	SD0462	0-0.5	453	453			
		0.5-1	22.4 {88.4}	55.4			
		1-1.5	17.32	17.3	254	414.3555	105000
	SD0463	0-0.5	19.5 [18.1]	18.8			
		0.5-1	ND(0.627)	0.314			
		1-1.5	ND(0.593)	0.297	9.56	517.3716	4950
T047	SD0471	0-0.5	21.5 J [146 J]	83.8			
		0.5-1	279	279			
		1-1.5	1307 {2780}	2040			
		1.5-2	3.59	3.59	181	913.8525	165000
	SD0472	0-0.5	ND(0.562)	0.281			
		0.5-1	8.77	8.77			
		1-1.5	ND(0.549)	0.275			
		1.5-2	ND(0.586)	0.293	4.53	949.314	4300
	SD0473	0-0.5	2.58	2.58			
		0.5-1	1.67	1.67			
		1-1.5	ND(0.62)	0.310			
		1.5-2	ND(0.644)	0.322	2.13	841.3579	1790
T048	SD0481	0-0.5	1.56	1.56			
		0.5-1	2.36	2.36			
		1-1.5	0.515 J	0.515	1.96	884.1162	1730
	SD0482	0-0.5	19.4	19.4			
		0.5-1	24.1 {55}	39.6	29.5	675.5693	19900
	SD0483	0-0.5	56.9	56.9			
		0.5-1	15.4	15.4	36.2	759.3594	27500
T049	SD0491	0-0.5	ND(0.589)	0.295	0.295	966.9243	285
	SD0492	0-0.5	ND(0.661) {2.37}	1.35	1.35	735.4233	993
	SD0493	0-0.5	ND(0.612)	0.306			
		0.5-1	ND(0.622)	0.311	0.309	677.6782	209
T050	SD0501	0-0.5	327	327			
		0.5-1	26.8	26.8			
		1-1.5	794	794			
		1.5-2	10.5	10.5	177	1102.682	195000
	SD0502	0-0.5	92.8 [59]	75.9			
		0.5-1	70.2	70.2	73.1	1184.701	86600
	SD0503	0-0.5	19.8	19.8			
		0.5-1	ND(0.77) {2.84}	1.61			
		1-1.5	ND(0.679)	0.340			
		1.5-2	ND(0.628)	0.314	10.7	1126.055	12000
T051	SD0511	0-0.5	ND(0.696) {3.55}	1.95			
		0.5-1	1.66	1.66			
		1-1.5	1.65	1.65	1.81	897.4023	1620
	SD0512	0-0.5	ND(0.602)	0.301			
		0.5-1	ND(0.734)	0.367			
		1-1.5	ND(0.687)	0.344	0.334	886.0039	296
	SD0513	0-0.5	3.07	3.07			
		0.5-1	13.8	13.8			
		1-1.5	ND(0.626)	0.313			
		1.5-2	ND(0.598)	0.299	8.44	1122.999	9480
T052	SD0521	0-0.5	4.66	4.66			
		0.5-1	ND(0.595)	0.298			
		1-1.5	0.049 J {ND(0.131)}	0.0573			
		1.5-2	ND(0.57)	0.285	2.48	722.8862	1790
	SD0522	0-0.5	37.8 J	37.8			
		0.5-1	55.8	55.8			
		1-1.5	1.47	1.47	46.8	767.9551	35900

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (PRE-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft²)	Area Weighted Location Avg (0-1 ft)
T052	SD0523	0-0.5	0.731	0.731			
		0.5-1	ND(0.743)	0.372			
		1-1.5	ND(0.657)	0.329	0.552	710.8281	392
T053	SD0531	0-0.5	26.6	26.6			
		0.5-1	8	8.00	17.3	1058.353	18300
	SD0532	0-0.5	248 {53.9}	151			
		0.5-1	230	230			
		1-1.5	7.2	7.20	191	1188.448	227000
	SD0533	0-0.5	0.87	0.870			
		0.5-1	9.7	9.70			
		1-1.5	ND(0.609)	0.305			
		1.5-2	ND(0.628)	0.314	5.29	827.8804	4380
T054	SD0541	0-0.5	3.11	3.11			
		0.5-1	10	10.0			
		1-1.5	17.2	17.2			
		1.5-2	1.61	1.61	6.56	809.9937	5310
	SD0542	0-0.5	145	145			
		0.5-1	6.59 [5.38] {12.3}	9.14			
		1-1.5	0.455 J	0.455	77.1	866.5361	66800
	SD0543	0-0.5	ND(0.594)	0.297			
		0.5-1	ND(0.751)	0.376			
		1-1.5	0.29 J	0.290			
		1.5-2	ND(0.703)	0.352	0.337	777.2178	262
T055	SD0551	0-0.5	11.6	11.6			
		0.5-1	25.4	25.4	18.5	739.0942	13700
	SD0552	0-0.5	5.42	5.42			
		0.5-1	2.95	2.95			
		1-1.5	0.54 J {ND(0.236)}	0.329			
		1.5-2	ND(0.62)	0.310	4.19	907.96	3800
	SD0553	0-0.5	ND(0.589)	0.295			
		0.5-1	ND(0.642)	0.321	0.308	704.9233	217
T056	SD0561	0-0.5	16.2	16.2			
		0.5-1	1.09 {2.97}	2.03			
		1-1.5	ND(0.827)	0.414			
		1.5-2	39.5	39.5	9.12	875.1338	7980
	SD0562	0-0.5	2.86	2.86			
		0.5-1	57 J	57.0			
		1-1.5	43.1	43.1			
		1.5-2	16.64	16.6	29.9	789.5576	23600
	SD0563	0-0.5	1.34	1.34			
		0.5-1	0.355 J	0.355			
		1-1.5	ND(0.612)	0.306			
		1.5-2	ND(0.639)	0.320	0.848	777.3306	659
T057	SD0571	0-0.5	164 J {42.5}	103	103	812.3208	83700
	SD0572	0-0.5	9411	9410			
		0.5-1	14.8 [16.8]	15.8			
		1-1.3	1.89	1.89	4710	507.4917	2390000
	SD0573	0-0.5	17.5	17.5			
		0.5-1	1.94	1.94	9.72	739.5176	7190
T058	SD0581	0-0.5	1269	1270			
		0.5-1	770	770	1020	997.1943	1020000
	SD0582	0-0.5	132	132			
		0.5-1	22.6	22.6			
		1-1.5	0.485 J	0.485	77.3	828.7319	64100
	SD0583	0-0.5	ND(0.6) [ND(0.605)] {ND(0.133) [ND(0.134)]}	0.184			
		0.5-1	ND(0.568)	0.284			
		1-1.5	ND(0.584)	0.292	0.234	992.1553	232
T059	SD0591	0-0.5	98.5	98.5	98.5	971.2332	95700
	SD0592	0-0.5	11.3	11.3			
		0.5-1	0.825 {14}	7.41	9.36	997.5725	9340
	SD0593	0-0.5	3.48	3.48	3.48	964.0945	3360
T060	SD0601	0-0.5	10.9	10.9	10.9	684.1956	7460
	SD0602	0-0.5	11.8 {19.9}	15.9	15.9	834.3345	13300
	SD0603	0-0.5	5.26	5.26			
		0.5-1	121	121	63.1	1012.59	63900
T061	SD0611	0-0.5	15.2	15.2	15.2	666.2568	10100
	SD0612	0-0.5	545	545			
		0.5-1	37 {8.04}	22.5			
		1-1.5	ND(0.671)	0.336	284	942.856	268000
	SD0613	0-0.5	2.59	2.59	2.59	1066.134	2760
T062	SD0621	0-0.5	0.556 J {1.75/18.9*}	5.44	5.44	876.9429	4770

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (PRE-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft^2)	Area Weighted Location Avg (0-1 ft)
T062	SD0622	0-0.5	1.02	1.02			
		0.5-1	1.82 J	1.82	1.42	855.325	1210
	SD0623	0-0.5	0.716	0.716			
		0.5-1	83.8	83.8	42.3	890.0366	37600
T063	SD0631	0-0.5	9.2 J	9.20	9.20	546.9944	5030
	SD0632	0-0.5	134.6 {2.82}	68.7			
		0.5-1	3.62	3.62	36.2	662.1177	24000
	SD0633	0-0.5	0.682	0.682	0.682	659.2998	450
**	HCSE-15	0-1.8	100	100	100	1066.777	107000
	3-7D	0-0.042	21.4	21.4			
		0.042-0.5	6.08	6.08	7.37	296.7092	1090
	3-7D-CRD	0-0.33	7.8	7.80			
		0.33-0.67	102	102			
		0.67-1	315	315			
		1-1.3	139	139			
		1.3-1.7	0.43	0.430	141	296.7092	20900
	S09A	0-0.5	16	16.0			
		0.5-1	9.3	9.30			
		1-1.6	1.7	1.70	12.7	659.5068	8380
	3-7B	0-0.042	10.3	10.3			
		0.042-0.5	1.4	1.40	2.15	307.5469	661
	S09B	0-0.5	5.7	5.70	5.70	953.0913	5430
	S09C	0-0.5	0.55	0.550			
		0.5-1	1.1	1.10	0.825	547.9839	452
	BBS09D	0-0.5	0.94	0.940			
		0.5-1	3.9	3.90			
		1-1.5	5.3	5.30			
		1.5-2	0.05	0.0500			
		2-2.5	ND(0.05)	0.0250	2.42	464.5293	1120
	S09D	0-0.33	67	67.0	67.0	108.6064	7280
	3-6A	0-0.5	0.3	0.300			
		0.5-1	5.2	5.20			
		1-1.5	1.4	1.40			
		1.5-2	ND(0.14)	0.0700	2.75	975.7139	2680
	3-6A-1	0-0.042	25.5	25.5			
		0.042-0.5	4.91	4.91	6.64	562.2681	3730
	S09E1	0-0.5	30	30.0	30.0	306.1	9180
	S09E2	0-0.5	0.52	0.520	0.520	541.2	281
	3-5B-3	0-0.042	39.8	39.8			
		0.042-0.5	21.1	21.1	22.7	654.5303	14900
	3-5A-3	0-0.042	1.72	1.72			
		0.042-0.5	66.4	66.4	61.0	387.8228	23700
	S09F	0-0.3	1.4	1.40	1.40	617.4556	864
	HCSE-5	0-1	ND(0.200)	0.100	0.100	1390.09	139
	3-2A-1-CRD	0-0.33	10	10.0			
		0.33-0.67	38	38.0			
		0.67-1	68	68.0			
		1-1.3	49	49.0			
		1.3-1.7	28	28.0	38.7	625.7759	24200
	S09G	0-0.033	34	34.0	34.0	667.0801	22700
	3-1A-3A	0-0.042	0.159	0.159			
		0.042-0.5	0.597	0.597	0.560	419.6821	235
	3-6C-45	0-0.5	3.14	3.14			
		0.5-1	7.65	7.65			
		1-1.3	1290	1290	5.40	237.709	1280
	3-6C-46	0-0.58	1.44	1.44			
		0.58-1.2	8.61 [5.24]	6.93	3.75	253.8643	952
	3-6C-47	0-0.5	0.286	0.286			
		0.5-1	ND(0.129)	0.0645	0.175	318.5947	55.8
	3-6C-42	0-0.5	147	147			
		0.5-1	146	146			
		1-1.5	11	11.0	147	715.5415	105000
	3-6C-43	0-0.5	61.7	61.7			
		0.5-1	108	108			
		1-1.4	38.9	38.9	84.9	597.5962	50700
	3-6C-44	0-0.5	1.71	1.71	1.71	166.7192	285
	3-6C-40	0-0.5	48.5	48.5			
		0.5-1.1	38.1	38.1	43.3	240.3604	10400
	3-6C-41	0-0.5	1.35	1.35	1.35	89.20508	120
	3-6C-63	0-0.5	1.02	1.02			
		0.5-1	1.96	1.96	1.49	677.5215	1010

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (PRE-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft^2)	Area Weighted Location Avg (0-1 ft)
**	3-6C-65	0-0.5	0.162	0.162			
		0.5-1	0.122	0.122			
		1-1.5	ND(0.135)	0.0675	0.142	185.0762	26.3
	3-6C-62	0-0.5	0.364	0.364			
		0.5-1	1.11	1.11			
		1-1.3	0.589	0.589	0.737	416.3115	307
	3-6C-61	0-0.6	0.653	0.653	0.653	177.4897	116
	3-6C-38	0-0.7	ND(2.67)	1.34	1.34	169.0396	227
	3-6C-60	0-0.5	1.46	1.46			
		0.5-1	1.44	1.44	1.45	205.519	298
	3-6C-35	0-0.7	4.54	4.54	4.54	159.0405	722
	3-6C-79	0-0.58	1.15	1.15	1.15	198.8853	229
	3-6C-78	0-0.25	40.1	40.1	40.1	136.6753	5480
	3-6C-27	0-0.42	20.1	20.1	20.1	145.1938	2920
	3-6C-77	0-0.58	0.688	0.688	0.688	175.6392	121
	3-6C-48	0-0.5	10.2	10.2	10.2	167.2432	1710
	3-6C-76	0-0.5	45	45.0			
		0.5-0.92	82.1 [103]	92.6	66.7	113.8315	7590
	3-6C-26	0-0.5	100	100	100	368.7705	36900
	3-6C-49	0-0.5	0.241	0.241	0.241	238.0913	57.4
	3-6C-57	0-0.6	0.999	0.999	0.999	192.6655	192
	3-6C-23	0-0.5	8.25	8.25	8.25	474.9072	3920
	3-6C-56	0-0.5	19.8	19.8			
		0.5-1	21.4	21.4			
		1-1.6	22.5 [20.2]	21.4	20.6	158.6816	3270
	3-6C-22	0-0.5	16.4	16.4			
		0.5-1	12.3	12.3	14.4	154.8418	2230
	3-6C-20	0-0.5	140	140			
		0.5-1	210	210			
		1-1.6	0.736	0.736	175	135.0532	23600
	3-6C-54	0-0.5	1.4 [0.631]	1.02			
		0.5-1	77.7	77.7			
		1-1.4	3.9	3.90	39.4	151.2998	5960
	3-6C-55	0-0.5	0.668	0.668			
		0.5-1	19	19.0			
		1-1.5	8.33	8.33			
		1.5-1.8	1.25	1.25	9.83	319.8354	3140
	3-6C-66	0-0.5	1.21	1.21			
		0.5-1	27.3	27.3			
		1-1.5	38	38.0	14.3	156.0913	2230
	3-6C-18	0-0.5	27	27.0			
		0.5-1	31.4	31.4			
		1-1.5	94.6	94.6			
		1.5-2	0.919	0.919	29.2	222.3315	6490
	3-6C-75	0-0.5	6.55	6.55			
		0.5-1	154	154			
		1-1.5	60	60.0			
		1.5-1.8	16.8	16.8	80.3	223.188	17900
	3-6C-74	0-0.5	9.81	9.81			
		0.5-0.83	43.4	43.4	23.2	76.81641	1780
	3-6C-80	0-0.5	6.6 [6.8]	6.70			
		0.5-1	95.4	95.4			
		1-1.5	16.39	16.4			
		1.5-2	0.941	0.941			
		2-2.5	ND(0.131)	0.0655			
		2.5-3	ND(0.137)	0.0685			
		3-3.5	ND(0.135)	0.0675			
		3.5-4	ND(0.127)	0.0635			
		4-4.5	ND(0.132)	0.0660			
		4.5-5	ND(0.138)	0.0690	51.1	59.40283	3040
	3-6C-51	0-0.5	13.4	13.4			
		0.5-1	1.45 [1.64]	1.55			
		1-1.5	ND(0.126)	0.0630			
		1.5-2	ND(0.128)	0.0640			
		2-2.5	ND(0.128)	0.0640			
		2.5-3	ND(0.131)	0.0655			
		3-3.5	ND(0.130)	0.0650			
		3.5-4	ND(0.131)	0.0655			
		4-4.5	ND(0.140)	0.0700			
		4.5-4.8	ND(0.133)	0.0665	7.48	83.43262	624

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (PRE-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft^2)	Area Weighted Location Avg (0-1 ft)
**	3-6C-13	0-0.5	0.271	0.271			
		0.5-1	0.12	0.120			
		1-1.5	1.27	1.27			
		1.5-2	ND(0.128)	0.0640			
		2-2.5	ND(0.129)	0.0645			
		2.5-3	ND(0.115)	0.0575			
		3-3.5	ND(0.124)	0.0620			
		3.5-4	ND(0.126)	0.0630			
		4-4.5	ND(0.126)	0.0630			
		4.5-4.8	ND(0.123)	0.0615	0.196	342.2378	67.1
	64W-SD1	0-0.5	10.6	10.6			
		0.5-1	15.5	15.5			
		1-1.5	31.5	31.5			
		1.5-2	27.6	27.6			
		2-2.5	0.152	0.152	13.1	646.5	8470
	64W-SD2	0-0.5	13.4	13.4			
		0.5-1	210	210			
		1-1.5	69.8	69.8			
		1.5-2	42.8	42.8			
		2-2.5	1.56	1.56	112	446.9	50100
	64W-SD3	0-0.5	13.1	13.1			
		0.5-1	25.7	25.7			
		1-1.5	30.3	30.3			
		1.5-2	25.6	25.6			
		2-2.5	0.275	0.275	19.4	949.2	18400
					Total Area(square feet) -	153000	
					Spatial Average(by area in square feet) -		54.8

Notes:

J - Estimated Concentration
[2.01] - Result of duplicate sample
{218} - Result of GE split sample
ND(0.615) - Compound was not detected, associated detection limit presented in parenthesis
R - The sample results were rejected, based on Weston QA/QC review of the data
* - Laboratory re-analyzed sample due to elevated MS/MSD recoveries
** - Historic sample locations
F - Fine sediment portion of USEPA sample collected using "cobble method"
Duplicate and GE split samples were averaged prior to spatial average calculations; one-half the detection limit was used for non-detect results

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (POST-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft²)	Area Weighted Location Avg (0-1 ft)
T001	SD010011	0-0.5	3.41 J [10.1 J]	**0.0375**			
		0.5-1	1479 J {218}	**0.0375**			
		1-1.5	336	**0.0375**	0.0375	1441.427	54.1
	SD010012	0-0.5	ND(0.623)	**0.0375**			
		0.5-1	ND(0.615) {0.9}	**0.0375**			
		1-1.5	8.82	**0.0375**			
		1.5-2	1.29	**0.0375**	0.0375	1203.373	45.1
	SD010013	0-0.5	ND(0.649)	0.325			
		0.5-1	ND(0.819)	0.410			
		1-1.5	ND(0.596)	0.298	0.368	1245.635	458
T002	SD010021	0-0.5	ND(0.607)	**0.0375**			
		0.5-1	ND(0.591) [ND(0.598)] {1.76 J [0.269 J]}	**0.0375**			
		1-1.5	ND(0.574)	**0.0375**	0.0375	935.5566	35.1
	SD010022	0-0.5	ND(0.667)	**0.0375**			
		0.5-1	ND(0.623)	**0.0375**	0.0375	793.3584	29.8
	SD010023	0-0.5	ND(0.561)	**0.0375**			
		0.5-1	ND(0.604)	**0.0375**			
		1-1.5	0.065 J	**0.0375**	0.0375	944.1245	35.4
T003	SD010031	0-0.5	ND(0.63)	**0.0375**			
		0.5-1	23.7	**0.0375**			
		1-1.5	ND(0.631)	**0.0375**			
		1.5-2	ND(0.626)	**0.0375**	0.0375	820.3291	30.8
	SD010032	0-0.5	1.76	**0.0375**			
		0.5-1	31.4 J	**0.0375**			
		1-1.5	19.1 {14.8}	**0.0375**			
		1.5-2	15.4	**0.0375**	0.0375	1000.366	37.5
	SD010033	0-0.5	ND(0.598)	**0.0375**			
		0.5-1	ND(0.57)	**0.0375**			
		1-1.5	1.11 J	**0.0375**			
		1.5-2	9.49	**0.0375**	0.0375	979.8589	36.7
T004	SD010041	0-0.5	1.77	**0.0375**			
		0.5-1	ND(0.696)	**0.0375**			
		1-1.5	0.586 J	**0.0375**			
		1.5-2	1.73	**0.0375**			
		2-2.5	ND(0.628)	**0.0375**	0.0375	1082.074	40.6
	SD010042	0-0.5	48.4	**0.0375**			
		0.5-1	25.68	**0.0375**			
		1-1.5	ND(0.635)	**0.0375**	0.0375	1159.556	43.5
	SD010043	0-0.5	6.62 {2.95}	**0.0375**			
		0.5-1	0.65	**0.0375**			
		1-1.5	ND(0.567)	**0.0375**	0.0375	1123.246	42.1
T005	SD010051	0-0.5	83.4	**0.0375**			
		0.5-1	69.9	**0.0375**			
		1-1.5	10	**0.0375**	0.0375	971.9927	36.4
	SD010052	0-0.5	34.3	**0.0375**			
		0.5-1	4.81 J [10.6 J]	**0.0375**			
		1-1.5	1.95	**0.0375**			
		1.5-2	1.36	**0.0375**	0.0375	519.5693	19.5
	SD010053	0-0.5	ND(0.635)	**0.0375**			
		0.5-1	2.83 {34.6}	**0.0375**			
		1-1.5	3.83 J	**0.0375**			
		1.5-2	ND(0.655)	**0.0375**	0.0375	911.5806	34.2
T006	SD010061	0-0.5	ND(0.591)	**0.0375**			
		0.5-1	9.08	**0.0375**			
		1-1.5	6	**0.0375**			
		1.5-2	ND(0.707)	**0.0375**	0.0375	1192.035	44.7
	SD010062	0-0.5	199	**0.0375**			
		0.5-1	ND(0.785)	**0.0375**			
		1-1.5	10.6 J	**0.0375**			
		1.5-2	4.07 J {9.79}	**0.0375**			
		2-2.5	ND(0.63)	**0.0375**	0.0375	658.3369	24.7
	SD010063	0-0.5	1.52	**0.0375**			
		0.5-1	ND(0.731)	**0.0375**			
		1-1.5	ND(0.771)	**0.0375**			
		1.5-2	ND(0.647)	**0.0375**	0.0375	829.502	31.1
T007	SD010071	0-0.5	ND(0.599)	**0.0375**			
		0.5-1	0.6 J	**0.0375**			
		1-1.5	3.24	**0.0375**			
		1.5-2	0.338 J	**0.0375**			
		2-2.5	3.44 J	**0.0375**	0.0375	1078.628	40.4

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (POST-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft^2)	Area Weighted Location Avg (0-1 ft)
T007	SD010072	0-0.5	2.98	**0.0375**			
		0.5-1	32.3 J	**0.0375**			
		1-1.5	69.4 J {32.5}	**0.0375**			
		1.5-2	5.94	**0.0375**	0.0375	1040.345	39.0
	SD010073	0-0.5	ND(0.597)	**0.0375**			
		0.5-1	0.87	**0.0375**			
		1-1.5	1.89 [2.01]	**0.0375**			
		1.5-2	1.12	**0.0375**	0.0375	603.2227	22.6
T008	SD010081	0-0.5	3.228 J {4.23}	**0.0375**			
		0.5-1	31.2 J	**0.0375**			
		1-1.5	1.36 J	**0.0375**	0.0375	711.5596	26.7
	SD010082	0-0.5	ND(0.623) [ND(0.615)]	**0.0375**			
		0.5-1	ND(0.641)	**0.0375**			
		1-1.5	ND(0.674)	**0.0375**			
		1.5-2	ND(0.731)	**0.0375**	0.0375	719.9932	27.0
	SD010083	0-0.5	3.63 J	**0.0375**			
		0.5-1	66.5 J	**0.0375**			
		1-1.5	14.8 J	**0.0375**			
		1.5-2	ND(0.592)	**0.0375**	0.0375	855.9014	32.1
T009	SD010091	0-0.5	ND(0.614)	**0.0375**			
		0.5-1	ND(0.636)	**0.0375**	0.0375	458.1748	17.2
	SD010092	0-0.5	0.403 J	**0.0375**			
		0.5-1	ND(0.914)	**0.0375**			
		1-1.5	ND(1)	**0.0375**			
		1.5-2	ND(0.937)	**0.0375**	0.0375	542.916	20.4
	SD010093	0-0.5	ND(0.608)	**0.0375**			
		0.5-1	ND(0.605)	**0.0375**			
		1-1.5	1.95 J	**0.0375**			
		1.5-2	ND(0.732) {0.524}	**0.0375**			
		2-2.5	ND(0.638)	**0.0375**	0.0375	840.5889	31.5
T010	SD010103	0-0.5	0.056 J	0.0560			
		0-0.5 F	ND(1.12)	0.560			
		0.5-1	ND(0.656)	0.328			
		0.5-1 F	ND(0.941)	0.471	0.192	1761.574	338
T011	SD010111	0-0.5	ND(0.606)	0.303			
		0.5-1	ND(0.599)	0.300			
		1-1.5	ND(0.622)	0.311	0.302	872.1484	263
	SD010112	0-0.5	ND(0.585)	0.293			
		0.5-1	ND(0.608) [ND(0.589)]	0.299			
		1-1.5	ND(0.613)	0.307	0.296	612.7456	181
	SD010113	0-0.5	ND(0.641) {11.9}	6.11			
		0.5-1	0.078 J	0.0780			
		1-1.5	ND(0.575)	0.288	3.09	765.3867	2370
T012	SD010121	0-0.5	ND(0.584)	0.292			
		0.5-1	ND(0.572)	0.286	0.289	911.6611	263
	SD010122	0-0.5	ND(0.607) J	0.304			
		0.5-1	21 J {2.91}	12.0			
		1-1.5	15.1	15.1	6.15	830.1177	5110
	SD010123	0-0.5	ND(0.665)	0.333			
		0.5-1	ND(0.643)	0.322			
		1-1.5	ND(0.623)	0.312	0.328	767.3896	252
T013	SD010131	0-0.5	ND(0.578)	0.289			
		0-0.5 F	ND(0.938)	0.469			
		0.5-1	ND(0.573) {0.525}	0.406			
		0.5-1 F	ND(0.744)	0.372	0.348	1143.685	398
	SD010133	0-0.5	0.042 J {0.787}	0.415			
		0-0.5 F	ND(0.804)	0.402			
		0.5-1	ND(0.595)	0.298			
		0.5-1 F	ND(0.802)	0.401	0.357	1161.897	415
T014	SD010141	0-0.5	ND(0.609)	0.305			
		0-0.5 F	ND(1.48)	0.740			
		0.5-1	ND(0.564) {ND(0.127)}	0.173			
		0.5-1 F	ND(1.09)	0.545	0.239	725.2476	173
	SD010142	0-0.5	ND(0.586)	0.293			
		0-0.5 F	4.52	4.52			
		0.5-1	ND(0.565)	0.283			
		0.5-1 F	0.423 J	0.423	0.288	690.0898	199
	SD010143	0-0.5	0.869	0.869			
		0-0.5 F	ND(1.15)	0.575			
		0.5-1	ND(0.566) [ND(0.563)]	0.282			
		0.5-1 F	ND(0.838)	0.419	0.576	902.2251	520

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (POST-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft²)	Area Weighted Location Avg (0-1 ft)
T015	SD0151	0-0.5	ND(1.7) [ND(0.59)]	0.573			
		0.5-1	2	2.00	1.29	773.8105	998
	SD0152	0-0.5	ND(0.578)	0.289			
		0-0.5 F	ND(0.5)	0.250			
		0.5-1	0.3 J	0.300			
		0.5-1 F	ND(0.75)	0.375	0.295	595.2642	176
	SD0153	0-0.5	ND(0.579) {ND(0.119)}	0.175			
		0-0.5 F	ND(1.35)	0.675			
		0.5-1	ND(0.576)	0.288			
		0.5-1 F	R	0	0.232	874.4873	203
T016	SD010161	0-0.5	ND(0.594)	0.297			
		0-0.5 F	0.827 J	0.827			
		0.5-1	0.36 J {0.321}	0.341			
		0.5-1 F	ND(0.836)	0.418	0.319	838.8813	268
	SD010162	0-0.5	1.45 [1.21]	1.33			
		0-0.5 F	3.82	3.82			
		0.5-1	0.903 J	0.903			
		0.5-1 F	4.21	4.21	1.12	703.229	788
	SD010163	0-0.5	ND(0.578)	0.289			
		0-0.5 F	ND(0.871)	0.436			
		0.5-1	ND(0.582)	0.291			
		0.5-1 F	0.423 J	0.423	0.290	828.415	240
T017	SD0171	0-0.5	ND(0.56)	0.280			
		0.5-1	ND(0.58)	0.290			
		1-1.5	ND(0.6)	0.300	0.285	945.0708	269
	SD0172	0-0.5	ND(0.6)	0.300			
		0.5-1	ND(0.57)	0.285			
		1-1.5	ND(0.57)	0.285	0.293	797.043	234
	SD0173	0-0.5	ND(0.61)	0.305			
		0.5-1	0.156 J [ND(0.57)]	0.221			
		1-1.5	ND(0.57) {0.212}	0.249			
		1.5-2	ND(0.58)	0.290			
		2-2.5	ND(0.57)	0.285	0.263	931.4077	245
T018	SD010181	0-0.5	6.85	**0.0375**			
		0.5-1	0.795	**0.0375**	0.0375	715.3311	26.8
	SD010182	0-0.5	0.658	**0.0375**			
		0.5-1	ND(0.579)	**0.0375**			
		1-1.5	ND(0.613)	**0.0375**	0.0375	566.7275	21.3
	SD010183	0-0.5	4.6 J [0.347 J] {0.572 [0.644]}	**0.0375**			
		0.5-1	0.378 J	**0.0375**			
		1-1.5	0.31 J	**0.0375**	0.0375	849.0537	31.8
T019	SD0191	0-0.5	35.4	**0.0375**			
		0.5-1	0.806	**0.0375**	0.0375	661.8882	24.8
	SD0192	0-0.5	64.1	**0.0375**			
		0.5-1	14.3	**0.0375**	0.0375	800.1504	30.0
	SD0193	0-0.5	5.78 J	**0.0375**			
		0.5-1	ND(0.616) {1.54}	**0.0375**	0.0375	879.4912	33.0
T020	SD010201	0-0.5	45.7 [11.9]	**0.0375**			
		0.5-1	47.1	**0.0375**			
		1-1.5	251 {418}	**0.0375**			
		1.5-2	116	**0.0375**	0.0375	1086.539	40.7
	SD010202	0-0.5	ND(0.592)	**0.0375**			
		0.5-1	8.72 J	**0.0375**			
		1-1.5	ND(0.602)	**0.0375**	0.0375	1021.03	38.3
	SD010203	0-0.5	ND(0.607)	0.304			
		0.5-1	9.49 J	9.49			
		1-1.5	0.514 J	0.514	4.90	852.8901	4180
T021	SD0211	0-0.5	26 J	**0.0375**			
		0.5-1	55.3	**0.0375**			
		1-1.5	2.18 {10.8}	**0.0375**	0.0375	641.1704	24.0
	SD0212	0-0.5	0.716 J [0.354 J]	**0.0375**			
		0.5-1	3.7	**0.0375**	0.0375	890.6509	33.4
	SD0213	0-0.5	ND(0.58)	0.290	0.290	946.9263	275
T022	SD010223	0-0.5	ND(0.602)	0.301			
		0.5-1	ND(0.565)	0.283			
		1-1.5	ND(0.585)	0.293	0.292	981.332	287
	SD0221	0-0.5	72.2	**0.0375**			
		0.5-1	337	**0.0375**			
		1-1.5	191 {1010}	**0.0375**			
		1.5-2	868	**0.0375**			
		2-2.5	5756	**0.0375**	0.0375	947.2144	35.5

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (POST-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft^2)	Area Weighted Location Avg (0-1 ft)
T022	SD0222	0-0.5	ND(0.585)	**0.0375**			
		0.5-1	ND(0.602)	**0.0375**			
		1-1.5	ND(0.652)	**0.0375**			
		1.5-2	ND(0.694)	**0.0375**	0.0375	1009.224	37.8
T023	SD0231	0-0.5	24	**0.0375**			
		0.5-1	430 {498}	**0.0375**	0.0375	776	29.1
	SD0232	0-0.5	15.3	**0.0375**			
		0.5-1	840 J	**0.0375**			
		1-1.5	194.1	**0.0375**			
		1.5-2	56.3	**0.0375**	0.0375	529.8	19.9
	SD0233	0-0.5	ND(0.601)	0.301			
		0.5-1	ND(0.675)	0.338			
		1-1.5	ND(0.701)	0.351	0.320	580.3096	186
T024	SD0241	0-0.5	8.08 J [7.76 J] {4.82 J [11.2 J]}	**0.0375**			
		0.5-1	3.64	**0.0375**			
		1-1.5	5.86 J	**0.0375**			
		1.5-2	ND(0.613)	**0.0375**	0.0375	555	20.8
	SD0242	0-0.5	8.57 J	**0.0375**			
		0.5-1	572	**0.0375**			
		1-1.5	63.2	**0.0375**			
		1.5-2	ND(0.666)	**0.0375**	0.0375	442.1011	16.6
	SD0243	0-0.5	ND(0.676)	0.338			
		0.5-1	ND(0.595)	0.298			
		1-1.5	ND(0.592)	0.296			
		1.5-2	ND(0.585)	0.293	0.318	355.2285	113
T025	SD0251	0-0.5	21	**0.0375**			
		0.5-1	2.9	**0.0375**			
		1-1.5	ND(0.63)	**0.0375**			
		1.5-2	ND(0.63) {0.559}	**0.0375**	0.0375	985.5	37.0
	SD0252	0-0.5	11.2 J [13.9 J]	**0.0375**			
		0.5-1	ND(0.64)	**0.0375**			
		1-1.5	ND(0.64)	**0.0375**			
		1.5-2	ND(0.66)	**0.0375**	0.0375	1081.4	40.6
	SD0253	0-0.5	ND(0.59)	0.295			
		0.5-1	ND(0.61)	0.305			
		1-1.5	ND(0.56)	0.280	0.300	962.5352	289
T026	SD0261	0-0.5	ND(0.582)	**0.0375**			
		0.5-1	ND(0.584)	**0.0375**	0.0375	918.98	34.5
	SD0262	0-0.5	47.2 J {40.3}	**0.0375**			
		0.5-1	71.4 J	**0.0375**			
		1-1.5	9.05 J	**0.0375**	0.0375	898.5781	33.7
	SD0263	0-0.5	3.64 J	**0.0375**			
		0.5-1	2.61 J	**0.0375**	0.0375	853.5913	32.0
T027	SD0271	0-0.5	51	**0.0375**			
		0.5-1	ND(0.75)	**0.0375**			
		1-1.5	3.2 J {24.1}	**0.0375**			
		1.5-2	0.43 J	**0.0375**			
		2-2.5	ND(0.61)	**0.0375**	0.0375	738.6597	27.7
	SD0272	0-0.5	19	**0.0375**			
		0.5-1	14.1	**0.0375**			
		1-1.5	0.7 J	**0.0375**			
		1.5-2	ND(0.83)	**0.0375**	0.0375	962.0908	36.1
	SD0273	0-0.5	ND(0.61)	**0.0375**			
		0.5-1	1	**0.0375**			
		1-1.5	ND(0.62)	**0.0375**	0.0375	950.8125	35.7
T028	SD0281	0-0.5	212 J	**0.0375**			
		0.5-1	40.5 J	**0.0375**			
		1-1.5	34 J	**0.0375**	0.0375	667.2344	25.0
	SD0282	0-0.5	21.3	**0.0375**			
		0.5-1	27.5 {22.4}	**0.0375**			
		1-1.5	2.13	**0.0375**			
		1.5-2	1.06 J	**0.0375**	0.0375	901.1094	33.8
	SD0283	0-0.5	4.76 J	**0.0375**			
		0.5-1	2.96 J	**0.0375**	0.0375	1050.262	39.4
T029	SD0291	0-0.5	1.03	**0.0375**			
		0.5-1	ND(0.623)	**0.0375**			
		1-1.5	ND(0.645)	**0.0375**			
		1.5-2	ND(0.637)	**0.0375**	0.0375	778.1831	29.2
	SD0292	0-0.5	2.13	**0.0375**			
		0.5-1	89.4	**0.0375**			
		1-1.5	0.922 {0.358}	**0.0375**	0.0375	448.3521	16.8

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (POST-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft^2)	Area Weighted Location Avg (0-1 ft)
T029	SD0293	0-0.5	ND(0.609)	**0.0375**			
		0.5-1	91 J [10 J]	**0.0375**			
		1-1.5	7.6	**0.0375**			
		1.5-2	16	**0.0375**	0.0375	928.5229	34.8
T030	SD0301	0-0.5	39	**0.0375**			
		0.5-1	25	**0.0375**			
		1-1.5	41.4	**0.0375**	0.0375	887.8696	33.3
	SD0302	0-0.5	ND(0.584) J [1.32 J]	**0.0375**			
		0.5-1	ND(0.567)	**0.0375**			
		1-1.5	1.32	**0.0375**	0.0375	812.1377	30.5
	SD0303	0-0.5	260 J {610}	**0.0375**			
		0.5-1	58.8 J	**0.0375**			
		1-1.5	224 J	**0.0375**	0.0375	770.3774	28.9
T031	SD0311	0-0.5	5.41	**0.0375**			
		0.5-1	0.907	**0.0375**	0.0375	759.3418	28.5
	SD0312	0-0.5	ND(0.53)	**0.0375**			
		0.5-1	ND(0.581)	**0.0375**			
		1-1.5	140.2 {134 J}	**0.0375**			
		1.5-2	93.2 J	**0.0375**	0.0375	693.9634	26.0
	SD0313	0-0.5	ND(0.686)	**0.0375**			
		0.5-1	66.5	**0.0375**			
		1-1.5	20.92 J	**0.0375**	0.0375	779.9653	29.2
T032	SD0321	0-0.5	ND(0.64)	**0.0375**			
		0.5-1	14.3	**0.0375**			
		1-1.5	200 J	**0.0375**			
		1.5-2	108 J	**0.0375**	0.0375	889.9941	33.4
	SD0322	0-0.5	ND(0.596)	**0.0375**			
		0.5-1	1.26	**0.0375**			
		1-1.5	52.7 {27.3}	**0.0375**			
		1.5-2	3.63	**0.0375**	0.0375	763.0796	28.6
	SD0323	0-0.5	ND(0.585)	**0.0375**			
		0.5-1	ND(0.617)	**0.0375**			
		1-1.5	ND(0.66)	**0.0375**			
		1.5-2	ND(0.622)	**0.0375**	0.0375	779.0908	29.2
T033	SD0331	0-0.5	ND(0.629)	**0.0375**			
		0.5-1	6 J	**0.0375**			
		1-1.5	ND(0.598)	**0.0375**			
		2-2.5	ND(0.632) [ND(0.665)]	**0.0375**	0.0375	673.374	25.3
	SD0332	0-0.5	31.8	**0.0375**			
		0.5-1	607	**0.0375**			
		1-1.5	216 {473}	**0.0375**	0.0375	742.1294	27.8
	SD0333	0-0.5	ND(0.535)	**0.0375**			
		0.5-1	ND(0.629)	**0.0375**			
		1-1.5	ND(0.624)	**0.0375**			
		1.5-2	ND(0.614)	**0.0375**	0.0375	914.2837	34.3
T034	SD0341	0-0.5	0.605 J	**0.0375**			
		0.5-1	48.1	**0.0375**			
		1-1.5	12.6	**0.0375**			
		1.5-2	ND(0.62) {ND(0.131)}	**0.0375**			
		2-2.5	ND(0.62)	**0.0375**			
		2.5-3	ND(0.652)	**0.0375**	0.0375	171.1309	6.42
	SD0342	0-0.5	ND(0.567) [ND(0.565)]	**0.0375**			
		0.5-1	4.65	**0.0375**			
		1-1.5	14.2	**0.0375**	0.0375	226.0381	8.48
	SD0343	0-0.5	ND(0.583)	**0.0375**			
		0.5-1	ND(0.598)	**0.0375**	0.0375	836.0283	31.4
T035	SD0353	0-0.5	ND(0.698)	**0.0375**			
		0.5-1	ND(0.663)	**0.0375**			
		1-1.5	ND(0.777) {0.234}	**0.0375**	0.0375	327.1021	12.3
T036	SD0363	0-0.5	1.83	**0.0375**			
		0.5-1	0.441 J	**0.0375**	0.0375	54.10645	2.03
T037	SD0373	0-0.5	1.59 {15.4}	**0.0375**			
		0.5-1	15.93 J	**0.0375**			
		1-1.5	10.1 J	**0.0375**			
		1.5-2	5.74 J	**0.0375**	0.0375	138.1763	5.18
T038	SD0383	0-0.5	48.2	**0.0375**			
		0.5-1	10.1	**0.0375**			
		1-1.5	2.07	**0.0375**	0.0375	157.6455	5.91
T039	SD0393	0-0.5	0.985 {3.93}	**0.0375**	0.0375	430.7891	16.2
T040	SD0403	0-0.5	4.54	**0.0375**	0.0375	241.5034	9.06

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (POST-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft^2)	Area Weighted Location Avg (0-1 ft)
T041	SD0413	0-0.5	1.03	**0.0375**			
		0.5-1	0.336 J	**0.0375**			
		1-1.5	ND(0.612) {0.197}	**0.0375**	0.0375	96.07178	3.60
T042	SD0423	0-0.5	0.448 J {3.35}	**0.0375**	0.0375	201.5337	7.56
T043	SD0433	0-0.5	0.462 J	**0.0375**	0.0375	142.6719	5.35
T044	SD0443	0-0.5	6.64	**0.0375**			
		0.5-1	ND(0.584)	**0.0375**			
		1-1.5	ND(0.561)	**0.0375**	0.0375	176.6016	6.62
T045	SD0453	0-0.5	2.65	**0.0375**			
		0.5-1	12.1 {19.8}	**0.0375**			
		1-1.5	ND(0.571)	**0.0375**			
		1.5-2	ND(0.595)	**0.0375**	0.0375	287.9736	10.8
T046	SD0461	0-0.5	17.4	**0.0375**			
		0.5-1	36.2	**0.0375**			
		1-1.5	1412	**0.0375**	0.0375	584.3657	21.9
	SD0462	0-0.5	453	**0.0375**			
		0.5-1	22.4 {88.4}	**0.0375**			
		1-1.5	17.32	**0.0375**	0.0375	414.3555	15.5
	SD0463	0-0.5	19.5 [18.1]	**0.0375**			
		0.5-1	ND(0.627)	**0.0375**			
		1-1.5	ND(0.593)	**0.0375**	0.0375	517.3716	19.4
T047	SD0471	0-0.5	21.5 J [146 J]	**0.0375**			
		0.5-1	279	**0.0375**			
		1-1.5	1307 {2780}	**0.0375**			
		1.5-2	3.59	**0.0375**	0.0375	913.8525	34.3
	SD0472	0-0.5	ND(0.562)	**0.0375**			
		0.5-1	8.77	**0.0375**			
		1-1.5	ND(0.549)	**0.0375**			
		1.5-2	ND(0.586)	**0.0375**	0.0375	949.314	35.6
	SD0473	0-0.5	2.58	**0.0375**			
		0.5-1	1.67	**0.0375**			
		1-1.5	ND(0.62)	**0.0375**			
		1.5-2	ND(0.644)	**0.0375**	0.0375	841.3579	31.6
T048	SD0481	0-0.5	1.56	**0.0375**			
		0.5-1	2.36	**0.0375**			
		1-1.5	0.515 J	**0.0375**	0.0375	884.1162	33.2
	SD0482	0-0.5	19.4	**0.0375**			
		0.5-1	24.1 {55}	**0.0375**	0.0375	675.5693	25.3
	SD0483	0-0.5	56.9	**0.0375**			
		0.5-1	15.4	**0.0375**	0.0375	759.3594	28.5
T049	SD0491	0-0.5	ND(0.589)	**0.0375**	0.0375	966.9243	36.3
	SD0492	0-0.5	ND(0.661) {2.37}	**0.0375**	0.0375	735.4233	27.6
	SD0493	0-0.5	ND(0.612)	**0.0375**			
		0.5-1	ND(0.622)	**0.0375**	0.0375	677.6782	25.4
T050	SD0501	0-0.5	327	**0.0375**			
		0.5-1	26.8	**0.0375**			
		1-1.5	794	**0.0375**			
		1.5-2	10.5	**0.0375**	0.0375	1102.682	41.4
	SD0502	0-0.5	92.8 [59]	**0.0375**			
		0.5-1	70.2	**0.0375**	0.0375	1184.701	44.4
	SD0503	0-0.5	19.8	**0.0375**			
		0.5-1	ND(0.77) {2.84}	**0.0375**			
		1-1.5	ND(0.679)	**0.0375**			
		1.5-2	ND(0.628)	**0.0375**	0.0375	1126.055	42.2
T051	SD0511	0-0.5	ND(0.696) {3.55}	**0.0375**			
		0.5-1	1.66	**0.0375**			
		1-1.5	1.65	**0.0375**	0.0375	897.4023	33.7
	SD0512	0-0.5	ND(0.602)	**0.0375**			
		0.5-1	ND(0.734)	**0.0375**			
		1-1.5	ND(0.687)	**0.0375**	0.0375	886.0039	33.2
	SD0513	0-0.5	3.07	**0.0375**			
		0.5-1	13.8	**0.0375**			
		1-1.5	ND(0.626)	**0.0375**			
		1.5-2	ND(0.598)	**0.0375**	0.0375	1122.999	42.1
T052	SD0521	0-0.5	4.66	**0.0375**			
		0.5-1	ND(0.595)	**0.0375**			
		1-1.5	0.049 J {ND(0.131)}	**0.0375**			
		1.5-2	ND(0.57)	**0.0375**	0.0375	722.8862	27.1
	SD0522	0-0.5	37.8 J	**0.0375**			
		0.5-1	55.8	**0.0375**			
		1-1.5	1.47	**0.0375**	0.0375	767.9551	28.8

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (POST-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft²)	Area Weighted Location Avg (0-1 ft)
T052	SD0523	0-0.5	0.731	**0.0375**			
		0.5-1	ND(0.743)	**0.0375**			
		1-1.5	ND(0.657)	**0.0375**	0.0375	710.8281	26.7
T053	SD0531	0-0.5	26.6	**0.0375**			
		0.5-1	8	**0.0375**	0.0375	1058.353	39.7
	SD0532	0-0.5	248 {53.9}	**0.0375**			
		0.5-1	230	**0.0375**			
		1-1.5	7.2	**0.0375**	0.0375	1188.448	44.6
	SD0533	0-0.5	0.87	**0.0375**			
		0.5-1	9.7	**0.0375**			
		1-1.5	ND(0.609)	**0.0375**			
		1.5-2	ND(0.628)	**0.0375**	0.0375	827.8804	31.0
T054	SD0541	0-0.5	3.11	**0.0375**			
		0.5-1	10	**0.0375**			
		1-1.5	17.2	**0.0375**			
		1.5-2	1.61	**0.0375**	0.0375	809.9937	30.4
	SD0542	0-0.5	145	**0.0375**			
		0.5-1	6.59 [5.38] {12.3}	**0.0375**			
		1-1.5	0.455 J	**0.0375**	0.0375	866.5361	32.5
	SD0543	0-0.5	ND(0.594)	0.297			
		0.5-1	ND(0.751)	0.376			
		1-1.5	0.29 J	0.290			
		1.5-2	ND(0.703)	0.352	0.337	777.2178	262
T055	SD0551	0-0.5	11.6	**0.0375**			
		0.5-1	25.4	**0.0375**	0.0375	739.0942	27.7
	SD0552	0-0.5	5.42	**0.0375**			
		0.5-1	2.95	**0.0375**			
		1-1.5	0.54 J {ND(0.236)}	**0.0375**			
		1.5-2	ND(0.62)	**0.0375**	0.0375	907.96	34.0
	SD0553	0-0.5	ND(0.589)	0.295			
		0.5-1	ND(0.642)	0.321	0.308	704.9233	217
T056	SD0561	0-0.5	16.2	**0.0375**			
		0.5-1	1.09 {2.97}	**0.0375**			
		1-1.5	ND(0.827)	**0.0375**			
		1.5-2	39.5	**0.0375**	0.0375	875.1338	32.8
	SD0562	0-0.5	2.86	**0.0375**			
		0.5-1	57 J	**0.0375**			
		1-1.5	43.1	**0.0375**			
		1.5-2	16.64	**0.0375**	0.0375	789.5576	29.6
	SD0563	0-0.5	1.34	**0.0375**			
		0.5-1	0.355 J	**0.0375**			
		1-1.5	ND(0.612)	**0.0375**			
		1.5-2	ND(0.639)	**0.0375**	0.0375	777.3306	29.1
T057	SD0571	0-0.5	164 J {42.5}	**0.0375**	0.0375	812.3208	30.5
	SD0572	0-0.5	9411	**0.0375**			
		0.5-1	14.8 [16.8]	**0.0375**			
		1-1.3	1.89	**0.0375**	0.0375	507.4917	19.0
	SD0573	0-0.5	17.5	**0.0375**			
		0.5-1	1.94	**0.0375**	0.0375	739.5176	27.7
T058	SD0581	0-0.5	1269	**0.0375**			
		0.5-1	770	**0.0375**	0.0375	997.1943	37.4
	SD0582	0-0.5	132	**0.0375**			
		0.5-1	22.6	**0.0375**			
		1-1.5	0.485 J	**0.0375**	0.0375	828.7319	31.1
	SD0583	0-0.5	ND(0.6) [ND(0.605)] {ND(0.133) [ND(0.134)]}	**0.0375**			
		0.5-1	ND(0.568)	**0.0375**			
		1-1.5	ND(0.584)	**0.0375**	0.0375	992.1553	37.2
T059	SD0591	0-0.5	98.5	**0.0375**	0.0375	971.2332	36.4
	SD0592	0-0.5	11.3	**0.0375**			
		0.5-1	0.825 {14}	**0.0375**	0.0375	997.5725	37.4
	SD0593	0-0.5	3.48	**0.0375**	0.0375	964.0945	36.2
T060	SD0601	0-0.5	10.9	**0.0375**	0.0375	684.1956	25.7
	SD0602	0-0.5	11.8 {19.9}	**0.0375**	0.0375	834.3345	31.3
	SD0603	0-0.5	5.26	**0.0375**			
		0.5-1	121	**0.0375**	0.0375	1012.59	38.0
T061	SD0611	0-0.5	15.2	**0.0375**	0.0375	666.2568	25.0
	SD0612	0-0.5	545	**0.0375**			
		0.5-1	37 {8.04}	**0.0375**			
		1-1.5	ND(0.671)	**0.0375**	0.0375	942.856	35.4
	SD0613	0-0.5	2.59	**0.0375**	0.0375	1066.134	40.0
T062	SD0621	0-0.5	0.556 J {1.75/18.9*}	**0.0375**	0.0375	876.9429	32.9

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (POST-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft^2)	Area Weighted Location Avg (0-1 ft)
T062	SD0622	0-0.5	1.02	**0.0375**			
		0.5-1	1.82 J	**0.0375**	0.0375	855.325	32.1
	SD0623	0-0.5	0.716	**0.0375**			
		0.5-1	83.8	**0.0375**	0.0375	890.0366	33.4
T063	SD0631	0-0.5	9.2 J	**0.0375**	0.0375	546.9944	20.5
	SD0632	0-0.5	134.6 {2.82}	**0.0375**			
		0.5-1	3.62	**0.0375**	0.0375	662.1177	24.8
	SD0633	0-0.5	0.682	**0.0375**	0.0375	659.2998	24.7
**	HCSE-15	0-1.8	100	**0.0375**	0.0375	1066.777	40.0
	3-7D	0-0.042	21.4	**0.0375**			
		0.042-0.5	6.08	**0.0375**	0.0375	296.7092	5.56
	3-7D-CRD	0-0.33	7.8	**0.0375**			
		0.33-0.67	102	**0.0375**			
		0.67-1	315	**0.0375**			
		1-1.3	139	**0.0375**			
		1.3-1.7	0.43	**0.0375**	0.0375	296.7092	5.56
	S09A	0-0.5	16	**0.0375**			
		0.5-1	9.3	**0.0375**			
		1-1.6	1.7	**0.0375**	0.0375	659.5068	24.7
	3-7B	0-0.042	10.3	**0.0375**			
		0.042-0.5	1.4	**0.0375**	0.0375	307.5469	11.5
	S09B	0-0.5	5.7	**0.0375**	0.0375	953.0913	35.7
	S09C	0-0.5	0.55	**0.0375**			
		0.5-1	1.1	**0.0375**	0.0375	547.9839	20.5
	BBS09D	0-0.5	0.94	**0.0375**			
		0.5-1	3.9	**0.0375**			
		1-1.5	5.3	**0.0375**			
		1.5-2	0.05	**0.0375**			
		2-2.5	ND(0.05)	**0.0375**	0.0375	464.5293	17.4
	S09D	0-0.33	67	**0.0375**	0.0375	108.6064	4.07
	3-6A	0-0.5	0.3	**0.0375**			
		0.5-1	5.2	**0.0375**			
		1-1.5	1.4	**0.0375**			
		1.5-2	ND(0.14)	**0.0375**	0.0375	975.7139	36.6
	3-6A-1	0-0.042	25.5	**0.0375**			
		0.042-0.5	4.91	**0.0375**	0.0375	562.2681	21.1
	S09E1	0-0.5	30	**0.0375**	0.0375	306.1	11.5
	S09E2	0-0.5	0.52	**0.0375**	0.0375	541.2	20.3
	3-5B-3	0-0.042	39.8	**0.0375**			
		0.042-0.5	21.1	**0.0375**	0.0375	654.5303	24.5
	3-5A-3	0-0.042	1.72	**0.0375**			
		0.042-0.5	66.4	**0.0375**	0.0375	387.8228	14.5
	S09F	0-0.3	1.4	**0.0375**	0.0375	617.4556	23.2
	HCSE-5	0-1	ND(0.200)	0.100	0.100	1390.09	139
	3-2A-1-CRD	0-0.33	10	**0.0375**			
		0.33-0.67	38	**0.0375**			
		0.67-1	68	**0.0375**			
		1-1.3	49	**0.0375**			
		1.3-1.7	28	**0.0375**	0.0375	625.7759	23.5
	S09G	0-0.033	34	**0.0375**	0.0375	667.0801	25.0
	3-1A-3A	0-0.042	0.159	**0.0375**			
		0.042-0.5	0.597	**0.0375**	0.0375	419.6821	15.7
	3-6C-45	0-0.5	3.14	**0.0375**			
		0.5-1	7.65	**0.0375**			
		1-1.3	1290	**0.0375**	0.0375	237.709	8.91
	3-6C-46	0-0.58	1.44	**0.0375**			
		0.58-1.2	8.61 [5.24]	**0.0375**	0.0375	253.8643	9.52
	3-6C-47	0-0.5	0.286	**0.0375**			
		0.5-1	ND(0.129)	**0.0375**	0.0375	318.5947	11.9
	3-6C-42	0-0.5	147	**0.0375**			
		0.5-1	146	**0.0375**			
		1-1.5	11	**0.0375**	0.0375	715.5415	26.8
	3-6C-43	0-0.5	61.7	**0.0375**			
		0.5-1	108	**0.0375**			
		1-1.4	38.9	**0.0375**	0.0375	597.5962	22.4
	3-6C-44	0-0.5	1.71	**0.0375**	0.0375	166.7192	6.25
	3-6C-40	0-0.5	48.5	**0.0375**			
		0.5-1.1	38.1	**0.0375**	0.0375	240.3604	9.01
	3-6C-41	0-0.5	1.35	**0.0375**	0.0375	89.20508	3.35
	3-6C-63	0-0.5	1.02	**0.0375**			
		0.5-1	1.96	**0.0375**	0.0375	677.5215	25.4

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (POST-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft²)	Area Weighted Location Avg (0-1 ft)
**	3-6C-65	0-0.5	0.162	**0.0375**			
		0.5-1	0.122	**0.0375**			
		1-1.5	ND(0.135)	**0.0375**	0.0375	185.0762	6.94
	3-6C-62	0-0.5	0.364	**0.0375**			
		0.5-1	1.11	**0.0375**			
		1-1.3	0.589	**0.0375**	0.0375	416.3115	15.6
	3-6C-61	0-0.6	0.653	**0.0375**	0.0375	177.4897	6.66
	3-6C-38	0-0.7	ND(2.67)	**0.0375**	0.0375	169.0396	6.34
	3-6C-60	0-0.5	1.46	**0.0375**			
		0.5-1	1.44	**0.0375**	0.0375	205.519	7.71
	3-6C-35	0-0.7	4.54	**0.0375**	0.0375	159.0405	5.96
	3-6C-79	0-0.58	1.15	**0.0375**	0.0375	198.8853	7.46
	3-6C-78	0-0.25	40.1	**0.0375**	0.0375	136.6753	5.13
	3-6C-27	0-0.42	20.1	**0.0375**	0.0375	145.1938	5.44
	3-6C-77	0-0.58	0.688	**0.0375**	0.0375	175.6392	6.59
	3-6C-48	0-0.5	10.2	**0.0375**	0.0375	167.2432	6.27
	3-6C-76	0-0.5	45	**0.0375**			
		0.5-0.92	82.1 [103]	**0.0375**	0.0375	113.8315	4.27
	3-6C-26	0-0.5	100	**0.0375**	0.0375	368.7705	13.8
	3-6C-49	0-0.5	0.241	**0.0375**	0.0375	238.0913	8.93
	3-6C-57	0-0.6	0.999	**0.0375**	0.0375	192.6655	7.22
	3-6C-23	0-0.5	8.25	**0.0375**	0.0375	474.9072	17.8
	3-6C-56	0-0.5	19.8	**0.0375**			
		0.5-1	21.4	**0.0375**			
		1-1.6	22.5 [20.2]	**0.0375**	0.0375	158.6816	5.95
	3-6C-22	0-0.5	16.4	**0.0375**			
		0.5-1	12.3	**0.0375**	0.0375	154.8418	5.81
	3-6C-20	0-0.5	140	**0.0375**			
		0.5-1	210	**0.0375**			
		1-1.6	0.736	**0.0375**	0.0375	135.0532	5.06
	3-6C-54	0-0.5	1.4 [0.631]	**0.0375**			
		0.5-1	77.7	**0.0375**			
		1-1.4	3.9	**0.0375**	0.0375	151.2998	5.67
	3-6C-55	0-0.5	0.668	**0.0375**			
		0.5-1	19	**0.0375**			
		1-1.5	8.33	**0.0375**			
		1.5-1.8	1.25	**0.0375**	0.0375	319.8354	12.0
	3-6C-66	0-0.5	1.21	**0.0375**			
		0.5-1	27.3	**0.0375**			
		1-1.5	38	**0.0375**	0.0375	156.0913	5.85
	3-6C-18	0-0.5	27	**0.0375**			
		0.5-1	31.4	**0.0375**			
		1-1.5	94.6	**0.0375**			
		1.5-2	0.919	**0.0375**	0.0375	222.3315	8.34
	3-6C-75	0-0.5	6.55	**0.0375**			
		0.5-1	154	**0.0375**			
		1-1.5	60	**0.0375**			
		1.5-1.8	16.8	**0.0375**	0.0375	223.188	8.37
	3-6C-74	0-0.5	9.81	**0.0375**			
		0.5-0.83	43.4	**0.0375**	0.0375	76.81641	2.88
	3-6C-80	0-0.5	6.6 [6.8]	**0.0375**			
		0.5-1	95.4	**0.0375**			
		1-1.5	16.39	**0.0375**			
		1.5-2	0.941	**0.0375**			
		2-2.5	ND(0.131)	**0.0375**			
		2.5-3	ND(0.137)	**0.0375**			
		3-3.5	ND(0.135)	**0.0375**			
		3.5-4	ND(0.127)	**0.0375**			
		4-4.5	ND(0.132)	**0.0375**			
		4.5-5	ND(0.138)	**0.0375**	0.0375	59.40283	2.23
	3-6C-51	0-0.5	13.4	**0.0375**			
		0.5-1	1.45 [1.64]	**0.0375**			
		1-1.5	ND(0.126)	**0.0375**			
		1.5-2	ND(0.128)	**0.0375**			
		2-2.5	ND(0.128)	**0.0375**			
		2.5-3	ND(0.131)	**0.0375**			
		3-3.5	ND(0.130)	**0.0375**			
		3.5-4	ND(0.131)	**0.0375**			
		4-4.5	ND(0.140)	**0.0375**			
		4.5-4.8	ND(0.133)	**0.0375**	0.0375	83.43262	3.13

(See notes on Page 10)

GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA-WEIGHTED TOTAL SEDIMENT PCB AVERAGE (POST-REMOVAL)

Transect	Location ID	Depth(feet)	Total PCBs	Average Total PCBs	Depth Weighted Location Avg (0-1 ft)	Area(ft^2)	Area Weighted Location Avg (0-1 ft)
**	3-6C-13	0-0.5	0.271	**0.0375**			
		0.5-1	0.12	**0.0375**			
		1-1.5	1.27	**0.0375**			
		1.5-2	ND(0.128)	**0.0375**			
		2-2.5	ND(0.129)	**0.0375**			
		2.5-3	ND(0.115)	**0.0375**			
		3-3.5	ND(0.124)	**0.0375**			
		3.5-4	ND(0.126)	**0.0375**			
		4-4.5	ND(0.126)	**0.0375**			
		4.5-4.8	ND(0.123)	**0.0375**	0.0375	342.2378	12.8
	64W-SD1	0-0.5	10.6	**0.0375**			
		0.5-1	15.5	**0.0375**			
		1-1.5	31.5	**0.0375**			
		1.5-2	27.6	**0.0375**			
		2-2.5	0.152	**0.0375**	0.0375	646.5	24.2
	64W-SD2	0-0.5	13.4	**0.0375**			
		0.5-1	210	**0.0375**			
		1-1.5	69.8	**0.0375**			
		1.5-2	42.8	**0.0375**			
		2-2.5	1.56	**0.0375**	0.0375	446.9	16.8
	64W-SD3	0-0.5	13.1	**0.0375**			
		0.5-1	25.7	**0.0375**			
		1-1.5	30.3	**0.0375**			
		1.5-2	25.6	**0.0375**			
		2-2.5	0.275	**0.0375**	0.0375	949.2	35.6
					Total Area(square feet) -	153000	
					Spatial Average(by area in square feet) -		0.164

Notes:

J - Estimated Concentration
[2.01] - Result of duplicate sample
{218} - Result of GE split sample
ND(0.615) - Compound was not detected, associated detection limit presented in parenthesis
R - The sample results were rejected, based on Weston QA/QC review of the data
* - Laboratory re-analyzed sample due to elevated MS/MSD recoveries
** - Historic sample locations
F - Fine sediment portion of USEPA sample collected using "cobble method"
Duplicate and GE split samples were averaged prior to spatial average calculations; one-half the detection limit was used for non-detect results

(See notes on Page 10)

Table C-3

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETS

REMOVAL ACTION WORKPLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
CALCULATION OF IN-SITU SEDIMENT REMOVAL VOLUME

Sample ID	Removal Depth (ft.)	Removal Area (sq. ft.)	Removal Volume (cu.yd.)
3-1A-3A	1.5	418	23
3-2A-1-CRD	2	627	46
3-5A-3	2	388	29
3-5B-3	1.5	757	42
3-6A	1.5	974	54
3-6A-1	1.5	562	31
3-6C-13	1.5	351	20
3-6C-18	2	223	17
3-6C-20	2	135	10
3-6C-22	2	155	11
3-6C-23	2	484	36
3-6C-26	2	369	27
3-6C-27	2	146	11
3-6C-35	2	159	12
3-6C-38	2	168	12
3-6C-40	2	253	19
3-6C-41	2	90	7
3-6C-42	1.5	716	40
3-6C-43	2	600	44
3-6C-44	1.5	196	11
3-6C-45	2	241	18
3-6C-46	2	254	19
3-6C-47	1.5	317	18
3-6C-48	2	166	12
3-6C-49	2	193	14
3-6C-51	1.5	79	4
3-6C-54	2	141	10
3-6C-55	2	319	24
3-6C-56	2	173	13
3-6C-57	2	211	16
3-6C-60	2	210	16
3-6C-61	2	189	14
3-6C-62	2	420	31
3-6C-63	2	686	51
3-6C-65	2	185	14
3-6C-66	2	147	11
3-6C-74	2	109	8

Table C-3

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETS

REMOVAL ACTION WORKPLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
CALCULATION OF IN-SITU SEDIMENT REMOVAL VOLUME

Sample ID	Removal Depth (ft.)	Removal Area (sq. ft.)	Removal Volume (cu.yd.)
3-6C-75	2	266	20
3-6C-76	2	157	12
3-6C-77	2	182	13
3-6C-78	2	155	11
3-6C-79	2	198	15
3-6C-80	1.5	60	3
3-7B	1.5	309	17
3-7D	2	297	22
64WSD1	2	646	48
64WSD2	2	447	33
64WSD3	2	950	70
BBS09D	1.5	466	26
HCSE-15	2	1065	79
S09A	1.5	771	43
S09B	1.5	954	53
S09C	1.5	547	30
S09D	1.5	106	6
S09E1	2	306	23
S09E2	1.5	406	30
S09F	1.5	616	34
S09G	1.5	667	37
SD00541	1.5	810	45
SD010011	2	1490	110
SD010012	2	615	91
SD010021	2	934	69
SD010022	2	394	58
SD010031	1.5	818	45
SD010032	2	1003	74
SD010033	1.5	981	55
SD010041	1.5	1081	60
SD010042	1.5	1159	64
SD010043	1.5	1123	62
SD010051	1.5	867	48
SD010052	1.5	536	30
SD010053	1.5	912	51
SD010061	1.5	963	54
SD010062	1.5	1059	59

Table C-3

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETS

REMOVAL ACTION WORKPLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
CALCULATION OF IN-SITU SEDIMENT REMOVAL VOLUME

Sample ID	Removal Depth (ft.)	Removal Area (sq. ft.)	Removal Volume (cu.yd.)
SD010063	1.5	831	46
SD010071	1.5	817	45
SD010072	1.5	1041	58
SD010073	1.5	605	34
SD010081	1.5	526	29
SD010082	1.5	719	40
SD010083	1.5	857	48
SD010091	1.5	172	19
SD010092	1.5	272	30
SD010093	1.5	420	47
SD010181	1.5	714	40
SD010182	1.5	568	32
SD010183	1.5	848	47
SD010201	2	1087	81
SD010202	1.5	1021	57
SD0191	1.5	663	37
SD0192	1.5	797	44
SD0193	1.5	881	49
SD0211	1.5	643	36
SD0212	1.5	890	49
SD0221	2.5	949	88
SD0222	1.5	1178	65
SD0231	2	779	58
SD0232	2	527	39
SD0241	1.5	553	31
SD0242	1.5	447	25
SD0251	1.5	985	55
SD0252	1.5	1082	60
SD0253	1.5	575	53
SD0261	1.5	918	51
SD0262	1.5	900	50
SD0263	1.5	852	47
SD0271	1.5	737	41
SD0272	1.5	962	53
SD0273	1.5	952	53
SD0281	2	669	50
SD0282	1.5	900	50

Table C-3

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETS

REMOVAL ACTION WORKPLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
CALCULATION OF IN-SITU SEDIMENT REMOVAL VOLUME

Sample ID	Removal Depth (ft.)	Removal Area (sq. ft.)	Removal Volume (cu.yd.)
SD0283	1.5	1051	58
SD0291	1.5	777	43
SD0292	1.5	447	25
SD0293	2	931	69
SD0301	2	888	66
SD0302	1.5	813	45
SD0303	2	771	57
SD0311	1.5	760	42
SD0312	2	695	52
SD0313	2	778	58
SD0321	2	889	66
SD0322	1.5	767	43
SD0323	1.5	777	43
SD0331	1.5	672	37
SD0332	2	742	55
SD0333	1.5	916	51
SD0341	1.5	178	10
SD0342	1.5	226	13
SD0343	1.5	836	46
SD0353	1.5	322	18
SD0363	2	72	5
SD0373	2	135	10
SD0383	2	157	12
SD0393	2	404	30
SD0403	2	245	18
SD0413	2	133	10
SD0423	2	210	16
SD0433	2	145	11
SD0443	2	176	13
SD0453	1.75	333	18
SD0461	2	582	43
SD0462	2	412	31
SD0463	1.5	518	29
SD0471	1.75	1070	59
SD0472	1.75	1108	62
SD0473	1.5	840	47
SD0481	1.5	883	49

Table C-3

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETS

REMOVAL ACTION WORKPLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
CALCULATION OF IN-SITU SEDIMENT REMOVAL VOLUME

Sample ID	Removal Depth (ft.)	Removal Area (sq. ft.)	Removal Volume (cu.yd.)
SD0482	1.5	675	38
SD0483	1.5	759	42
SD0491	1.5	966	54
SD0492	1.5	737	41
SD0493	1.5	678	38
SD0501	2	1104	82
SD0502	2	1186	88
SD0503	1.5	1124	62
SD0511	1.5	894	50
SD0512	1.5	890	49
SD0513	1.5	1121	62
SD0521	1.5	724	40
SD0522	1.5	765	43
SD0531	1.5	1059	59
SD0532	1.5	1187	66
SD0542	1.5	865	48
SD0551	2	738	55
SD0552	1.5	908	50
SD0561	2	875	65
SD0562	2	790	59
SD0571	2	810	60
SD0572	1.5	510	28
SD0573	1.5	739	41
SD0581	2	998	74
SD0582	1.5	967	54
SD0583	1.5	990	55
SD0591	2	969	72
SD0592	1.5	1164	65
SD0593	1.5	965	54
SD0601	2	682	51
SD0602	2	836	62
SD0603	2	1013	75
SD0611	2	666	49
SD0612	1.5	946	53
SD0613	1.5	1064	59
SD0621	1.5	875	49
SD0622	1.5	857	48

Table C-3

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETS

REMOVAL ACTION WORKPLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
CALCULATION OF IN-SITU SEDIMENT REMOVAL VOLUME

Sample ID	Removal Depth (ft.)	Removal Area (sq. ft.)	Removal Volume (cu.yd.)
SD0623	2	890	66
SD0631	1.5	553	31
SD0632	1.5	676	38
SD0633	1.5	675	38
		Total Volume (cy)	7697

Note:
The insitu sediment volume of 7697 cy is based on polygon removal. Additional sediment will be excavated as part of the project as part of the tie-in buffer excavation (132 cy) and excavation adjacent to the East Street Area 2 sheeting (250 cy).

Appendix D

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Bank Soil Removal Calculations and Assumptions

Appendix D

Bank Soil Removal Calculations and Assumptions

1.0 Introduction

As stated in USEPA's December 1, 1998 letter to GE, the PCB clean-up levels for the riverbanks along the Upper ½-Mile Reach of the Housatonic River are 10 ppm for the top 1-foot interval and 15 ppm for the 1- to 3- foot depth interval. Per the USEPA's letter, spatial averaging can be used to determine compliance with these levels. This Appendix describes the general procedures that were used by GE to estimate the existing spatial average PCB concentrations in the bank soils, determine the need for and scope of any removal actions, and determine the effectiveness of the removal action in reducing the average PCB concentrations.

2.0 Description of Spatial Averaging Approach

Spatial averaging was used to estimate the concentrations of PCBs in the bank soils along the first ½-mile of the Upper Reach of the Housatonic River. Consistent with USEPA's December 1, 1998 letter, spatial averaging was performed separately on seven discrete bank areas:

North Bank

1. The GE facility;
2. The Western Massachusetts Electric Company property; and,
3. GE's Lyman Street Parking Lot.

South Bank

4. The river bank extending from the western edge of the Western Massachusetts Electric Company property to the Lyman Street Bridge;
5. The Western Massachusetts Electric Company property;
6. The GE-owned Newell Street parking lot and the strip of GE owned land behind the Newell Street commercial properties; and,
7. The City-owned property adjacent to Hibbard Playground.

For each of the seven areas, the edge-of-water and top of bank were used to define the upper and lower boundaries.

The spatial averaging approach used by GE consists of an averaging technique that is area weighted. The basis for the spatial averaging approach described below is the initial characterization of a given area using the Thiessen polygon approach. This approach has been used by GE to define removal areas at other sites in Pittsfield requiring response actions, and has been approved by USEPA and MDEP for use at those sites.

Using the site plan, computer-generated drawings generated Thiessen polygon maps for both banks of the Housatonic River in the ½-Mile Reach at depth intervals of 0-1 foot and 1-3 feet. Thiessen polygon mapping involves the use of computer software to draw perpendicular bisector lines between adjacent sample locations to create two-dimensional, sample-specific polygon areas. Certain boundary conditions impact the generation of Thiessen polygons, such as the boundaries of the area subject to averaging, building footprints, property lines, etc. As appropriate, the computer-generated Thiessen polygons were modified to reflect actual site conditions, presence/absence of soil data at a given depth, the boundaries of each of the 7 discrete areas, or other specific or unique site considerations. In addition, based on several discussions between the USEPA and GE during April and May 1999, some of the polygons associated with the USEPA sample points were reconfigured to better represent the USEPA's intent for the sample location (i.e., top, middle, lower bank). In the analysis, different polygons were drawn for both depths (0-1 and 1-3 feet) because at some locations only surficial soil analytical results were available. Polygons for the 0-1 foot and 1-3 foot depth intervals are provided on Figures 4-1 through 4-4 of this Work Plan. After the generation of the Thiessen polygons, the slope area of each polygon was calculated using computer software, considering the slope of the bank within the polygon (i.e., Terra Model®).

The next step in the calculation of spatial average PCB concentrations involved the development of a computer spreadsheet to combine the results of the Thiessen polygon analysis and the laboratory PCB soil data. The computer spreadsheet combined information obtained from the Thiessen polygon mapping (i.e., area for each polygon) with the analytical results of soil sampling to provide a three-dimensional characterization of the soils associated with each polygon. The depth-weighted PCB average concentration for each sample point (both 0-1 feet and 1-3 feet) was considered the concentration of the entire polygon drawn around that point.

Using the information described above, a spatial average PCB concentration was derived by first multiplying the area of each polygon by its assigned PCB concentration, summing the results of this calculation for each polygon involved

in the evaluation, and then dividing that sum by the cumulative soil area associated with the respective discrete area along the bank. Refer to Tables D-1 through D-7 in this Appendix for existing PCB spatial average calculations.

The data used in the spatial averaging included all existing PCB data for the bank soil in the ½-Mile Reach. Sample points with more than one value, either a duplicate or a split sample, were arithmetically averaged to determine one discrete value for use in calculations. For samples with a value of non-detect, one-half the analytical detection limit was used for calculations. In instances where samples were only collected/analyzed from every other 0.5-foot interval, the 0-0.5 foot depth interval value was used to represent the top foot of bank soil, and the arithmetic average of the 1-1.5 foot and the 2-2.5 foot depth increment value was the value used for the 1-3 foot concentration. For those polygons removed as part of the 1997-1998 Building 68 Area removal action and those proposed for removal to meet the cleanup criteria, the soil used to backfill the area was assumed to contain PCBs at non-detectable levels (i.e., at ½ the laboratory detection limit of 0.075 ppm, or 0.0375 ppm).

3.0 Evaluation of Spatial Average Results

As provided in Tables D-1 through D-7, the existing PCB spatial averages are as follows:

Area	0-1 Foot Depth Existing PCB Spatial Average Concentration (ppm)	1-3 Foot Depth Existing PCB Spatial Average Concentration (ppm)
1	84	93
2	63	57
3	87	146
4	18	17
5	72	133
6	634	134
7	1.7	2.4

To meet the clean-up goals of 10 and 15 ppm, some removal of soil in six of the seven areas is required. No action is warranted in Area 7, which is the City-owned property adjacent to Hibbard Playground. The method used to determine the scope of removal activities is outlined in the following section, along with the results of the analysis.

4.0 Determination of Removal Areas

For each of the six areas where some soil removal is warranted to meet PCB clean-up goals, potential soil removal areas (corresponding to a given Thiessen polygon) were identified for evaluation. By: 1) assuming the removal of soils within the subject polygon to the depth selected for evaluation, 2) replacing the excavated soils with backfill material assumed to contain PCBs at non-detectable levels (i.e., concentration of 0.0375 ppm), and 3) recalculating the overall spatial average PCB concentration, the effectiveness of the response action was determined. Polygons were selected for removal on the basis of their concentration, while optimizing location (i.e., grouping where appropriate). Through an iterative process (performed as needed), additional polygons were selected for removal until the appropriate clean-up goals were achieved. Removal was assumed perpendicular to the bank and limited to the area of the polygon of concern. Refer to Tables D-8 through D-14 in this Appendix for the removal calculations and Figures 4-1 through 4-4 for removal locations.

Appendix IX+3 constituents were then considered on a post PCB removal basis. Based on an evaluation conceptually approved by USEPA (a description of the Appendix IX+3 evaluation can be found in Section 4.3.3), the removal of additional polygons was necessary in four of the seven bank soil averaging areas to achieve the Appendix IX+3 evaluation criteria for select constituents. Removal for Appendix IX+3 constituents was assumed for the area of the polygon, to a depth corresponding to the depth at which the sample causing the exceedence was taken. Refer to Tables 4-3 and 4-4 for the Appendix IX+3 calculations and results. The polygons removed based on the Appendix IX+3 evaluation are specified in Table D-15, and have been incorporated into Tables D-8, D-10, D-11, and D-14 in this Appendix. These polygons are also shown on Figures 4-1 through 4-4.

Based on the removal scenario described above, the spatial-average PCB concentrations for the entire ½-Mile Reach of the Housatonic River will be 7.6 ppm in the top foot and 11 ppm in the 1 to 3 foot depth interval following implementation of the river bank removal program and the East Street Area 2 source control work. For each of the seven bank areas defined by USEPA, the individual area spatial average PCB concentrations will be less than 10 ppm in the top foot of soil, less than 15 ppm in the 1- to 3-foot depth interval, and there will be no exceedences of Appendix IX+3 constituents. The table below presents the resulting PCB spatial averages for the two depth intervals for each area.

Area	0-1 Foot Depth Post-Removal Spatial-Average PCB Concentration (ppm)	1-3 Foot Depth Post-Removal Spatial-Average PCB Concentration (ppm)
1*	9.6	11.9
2	8.3	14.3
3	9.7	14.8
4	8.4	13.6
5	8.9	14.3
6	8.5	14.6

Note: * The 0-1 and 1-3 foot depth post-removal spatial average PCB concentration also will be less than 10 and 15 ppm, respectively, in the north bank soils adjacent to the area of a proposed ball field (the approximately 320-foot stretch of bank west of and adjacent to the Newell Street Bridge).

A total of approximately 4,300 cubic yards of bank soils is currently targeted for removal under the river bank removal program. This volume includes that associated with polygon removal to achieve PCB and Appendix IX+3 bank soil Performance Standards, as well as implementation of erosion protection and slope reduction measures (as further described in Section 8 of this Work Plan). Table D-15 lists the polygons targeted for removal, along with their respective removal depths, areas, volumes and reason for removal. The bank soil removal areas and depths are depicted in Figures 4-1 to 4-4. An additional 340 cubic yards will be removed between the sheeting and the River at East Street Area 2 as part of source control activities proposed for that area.

TABLE D-1

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (PRE-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T001	SL0001	0-0.5	0.58 {0.833}	0.707	0.707		400.10	282.67	
		1-1.5	5.07	5.070		55.535	400.10		22,219.55
		2-2.5	106	106.000					
	SL0002	0-0.5	1.87	1.870	1.870		1,315.00	2,459.05	
		1-1.5	2.38	2.380		5.790	1,315.00		7,613.85
		2-2.5	9.2	9.200					
	SL0003	0-0.5	3.55	3.550	3.550		1,193.70	4,237.64	
		1-1.5	0.96	0.960		0.750	1,193.70		895.28
		2-2.5	0.54	0.540					
T002	SL0410	0-0.5	13.2	13.200	13.200		724.90	9,568.68	
		1-1.5	6.94	6.94		3.505	724.90		2,540.77
		2-2.5	3.52 {10.5}	7.010					
	SL0411	0-0.5	7.01	7.01	7.010		525.50	3,683.76	
		1-1.5	0.85	0.847		12.324	525.50		6,476.00
		2-2.5	23.80	23.800					
	SL0412	0-0.5	24.6	24.6	24.600		31.00	762.60	
		1-1.5	25.80	25.800		13.865	31.00		429.82
		2-2.5	1.93	1.930					
T003	SL0004	0-0.5	0.32	0.32	0.320		492.80	157.70	
		1-1.5	0.4	0.400		0.400	492.80		197.12
		2-2.5	0.4 J	0.400					
	SL0005	0-0.5	74	74.000	74.000		817.40	60,487.60	
		1-1.5	11.4 {18.1}	14.750		10.075	817.40		8,235.31
		2-2.5	5.4 J	5.400					
	SL0006	0-0.5	9.4	9.4	9.400		375.10	3,525.94	
		1-1.5	0.94	0.940		0.950	375.10		356.35
		2-2.5	0.96 J	0.960					
T004	SL0407	0-0.5	ND(0.553)	0.277	0.277		534.80	147.87	
		1-1.5	ND(0.532)	0.226		0.256	534.80		137.04
		2-2.5	ND(0.573)	0.287					
	SL0408	0-0.5	70.3 {164}	117.150	117.150		492.90	57,743.24	
		1-1.5	67.60	67.600		54.900	492.90		27,060.21
		2-2.5	42.20	42.200					
	SL0409	0-0.5	68.8	68.8	68.800		669.30	46,047.84	
		1-1.5	47.3	47.300		41.650	669.30		27,876.35
		2-2.5	41 [31]	36.000					
T005	SL0007	0-0.5	23.8 [30.8]	27.300	27.300		379.10	10,349.43	
		1-1.5	75 {79.5}	77.250		77.250	379.10		29,285.48
	SL0008	0-0.5	73	73.000	73.000		642.90	46,931.70	
		1-1.5	46	46.000		41.800	642.90		26,873.22
		2-2.5	37.6	37.600					
	SL0009	0-0.5	4.34	4.340	4.340		421.70	1,830.18	
		1-1.5	1.1	1.100		1.100	421.70		463.87
T006	SL0404	0-0.5	ND(0.537)	0.269	0.269		757.3	203.34	
		1-1.5	0.996	0.996		1.548	757.3		1,172.30
		2-2.5	2.1	2.100					
	SL0405	0-0.5	21.3 {82.5}	51.900	51.900		489.6	25,410.24	
		1-1.5	6.76	6.760		5.005	489.6		2,450.45
		2-2.5	3.25	3.250					
	SL0406	0-0.5	4.65	4.650	4.650		168.1	781.67	
		1-1.5	ND(0.549)	0.275		0.278	168.1		46.69
		2-2.5	ND(0.562)	0.281					
T007	SL0028	0-0.5	0.58 {0.511}	0.546	0.546		360.60	196.71	
		1-1.5	1.94	1.940		1.940	360.60		699.56
	SL0029	0-0.5	0.48	0.480	0.480		489.80	235.10	
		1-1.5	2.7	2.700		2.700	489.80		1,322.46
	SL0030	0-0.5	8.6 [6.98]	7.790	7.790		569.20	4,434.07	
		1-1.5	6.3	6.300		6.300	569.20		3,585.96
T008	SL0401	0-0.5	11.2	11.200	11.200		429.30	4,808.16	
		1-1.5	ND(0.608) {8.56}	4.432		2.697	429.30		1,157.61
		2-2.5	0.961	0.961					
	SL0402	0-0.5	ND(0.519)	0.260	0.260		347.30	90.12	
		1-1.5	0.402 J	0.402		0.966	347.30		335.49
		2-2.5	1.53	1.530					

TABLE D-1

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (PRE-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T008	SL0403	0-0.5	25.2 [0.518 J]	12.859	12.859		524.30	6,741.97	
		1-1.5	6.72	6.720		3.831	526.90		2,018.29
		2-2.5	0.941	0.941					
T009	SL0041	0-0.5	1200	1200.000	1,200.000		315.10	378,120.00	
		1-1.5	167 {161}	164.000		112.000	315.10		35,291.20
		2-2.5	60 J	60.000					
	SL0042	0-0.5	3.62	3.620	3.620		377.90	1,368.00	
		1-1.5	13.9	13.900		9.700	595.00		5,771.50
		2-2.5	5.5	5.500					
	SL0043	0-0.5	20	20.000	20.000		253.40	5,068.00	
	BW-0037	0-0.5	1.7	2.000	2.000		504.20	1,008.40	
		1-1.5	43	43.000		73.000	504.20		36,806.60
		2-2.5	103	103.000					
	BW-0038	0-0.5	7.30	7.000	7.000		224.90	1,574.30	
		1-1.5	12	12.000		12.000	248.10		2,977.20
T010	SL0398	0-0.5	481 {39.5}	260.250	260.250		457.60	119,090.40	
		1-1.5	55.7	55.700		39.200	457.60		17,937.92
		2-2.5	22.7	22.700					
	SL0399	0-0.5	3.82	3.820	3.820		484.10	1,849.26	
		1-1.5	13.1 [13]	13.050		15.075	484.10		7,297.81
		2-2.5	17.1	17.100					
	SL0400	0-0.5	31.1	31.100	31.100		352.90	10,975.19	
		1-1.5	5.41	5.410		5.500	352.90		1,940.95
		2-2.5	5.59	5.590					
T011	SL0031	0-0.5	4.2	4.200	4.200		246.10	1,033.62	
		1-1.5	95 {84.4}	89.700		284.850	246.10		70,101.59
		2-2.5	480	480.000					
	SL0032	0-0.5	1.7	1.700	1.700		548.70	932.79	
		1-1.5	61	61.000		400.500	548.70		219,754.35
		2-2.5	740	740.000					
	SL0033	0-0.5	0.67	0.670	0.670		786.00	526.62	
		1-1.5	0.062	0.062		0.048	786.00		37.73
		2-2.5	0.034	0.034					
T012	SL0395	0-0.5	ND(0.719)	0.360	0.360		443.00	159.26	
		1-1.5	468	468.000		294.500	443.00		130,463.50
		2-2.5	121	121.000					
	SL0396	0-0.5	409 J	409.000	409.000		787.50	322,087.50	
		1-1.5	16 [17] {551}	194.667		102.533	787.50		80,745.00
		2-2.5	10.40	10.400					
	SL0397	0-0.5	ND(0.513)	0.257	0.257		839.90	215.43	
		1-1.5	ND(0.531)	0.266		0.269	839.90		226.14
		2-2.5	ND(0.546)	0.273					
T013	SL0044	0-0.5	3	3.000	3.000		588.60	1,765.80	
		1-1.5	ND(0.018)	0.009		0.017	588.60		9.71
		2-2.5	0.024	0.024					
	SL0045	0-0.5	6.7	6.700	6.700		693.50	4,646.45	
		1-1.5	0.57 {1.38}	0.975		0.948	693.50		657.09
		2-2.5	0.92	0.920					
	SL0046	0-0.5	0.43 J [0.56]	0.495	0.495		772.80	382.54	
		1-1.5	0.058	0.058		0.095	772.80		73.42
		2-2.5	0.132 J	0.132					
T014	SL0392	0-0.5	ND(0.651) {1.81}	1.068	1.068		580.80	620.15	
		1-1.5	ND(0.713)	0.357		0.338	580.80		196.17
		2-2.5	ND(0.638)	0.319					
	SL0393	0-0.5	20.51	20.510	20.510		820.50	16,828.46	
		1-1.5	8.49 [10.74]	9.615		4.951	820.50		4,061.89
		2-2.5	ND(0.572)	0.286					
	SL0394	0-0.5	0.388 J	0.388	0.388		825.00	320.10	
		1-1.5	ND(0.507)	0.254		0.257	825.00		211.82
		2-2.5	ND(0.52)	0.260					
T015	SL0034	0-0.5	0.59	0.590	0.590		553.60	326.62	
		1-1.5	0.9 J [3.38 J]	2.140		2.810	553.60		1,555.62
		2-2.5	3.48	3.480					
	SL0035	0-0.5	148	148.000	148.000		830.00	122,840.00	
		1-1.5	29.4	29.400		23.450	830.00		19,463.50
		2-2.5	17.5	17.500					
	SL0036	0-0.5	0.65	0.650	0.650		736.50	478.73	
		1-1.5	ND(0.017)	0.009		0.022	736.50		15.83
		2-2.5	ND(0.018) {ND(0.120)}	0.035					

TABLE D-1

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (PRE-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T016	SL0379	0-0.5	ND(0.656)	0.328	0.328		656.00	215.17	
		1-1.5	ND(0.703)	0.352		1.993	656.00		1,307.57
		2-2.5	1.26 {6.01}	3.635					
	SL0380	0-0.5	2.56	2.560	2.560		867.00	2,219.52	
		1-1.5	ND(0.508)	0.254		0.255	867.00		220.65
		2-2.5	0.33 J	0.255					
	SL0381	0-0.5	1.35	1.350	1.350		455.70	615.20	
		1-1.5	ND(0.516)	0.258		1.359	455.70		619.30
		2-2.5	2.46	2.460					
T017	SL0010	0-0.5	10.8	10.800	10.800		738.10	7,971.48	
		1-1.5	70 {83.9}	76.950		65.475	738.10		48,327.10
		2-2.5	54	54.000					
	SL0011	0-0.5	0.92	0.920	0.920		812.60	747.59	
		1-1.5	0.021	0.021		0.028	812.60		22.35
		2-2.5	0.034	0.034					
	SL0047	0-0.5	1.29	1.290	1.290		310.90	401.06	
		1-1.5	0.285 J	0.285		0.148	310.90		45.94
		2-2.5	ND(0.021)	0.011					
T018	SL0376	0-0.5	1.1 J	0.340	0.340		553.60	187.95	
		1-1.5	ND(0.728) {1.48}	0.922		0.638	553.60		353.20
		2-2.5	ND(0.713) [ND(0.704)]	0.354					
	SL0377	0-0.5	10.9 J	10.900	10.900		712.50	7,766.25	
		1-1.5	ND(0.524)	0.262		0.262	712.50		186.68
		2-2.5	ND(0.524)	0.262					
	SL0378	0-0.5	0.889 J	0.889	0.889		281.90	250.61	
		1-1.5	ND(0.514)	0.257		0.258	281.90		72.73
		2-2.5	ND(0.518)	0.259					
T019	SL0020	0-0.5	0.728	0.728	0.728		475.30	346.02	
		1-1.5	0.676	0.676		1.858	475.30		883.11
		2-2.5	3.04 J	3.040					
	SL0021	0-0.5	96 {84.2}	90.100	90.100		590.40	53,195.04	
		1-1.5	2.64	2.640		2.210	590.40		1,304.78
		2-2.5	1.78	1.780					
	SL0022	0-0.5	5.5	5.500	5.500		257.50	1,416.25	
		1-1.5	0.35	0.350		0.258	257.60		66.46
		2-2.5	0.166	0.166					
T020	SL0343	0-0.5	ND(0.682)	0.341	0.341		312.10	106.43	
		1-1.5	ND(0.754)	0.377		1.02	312.10		317.87
		2-2.5	2.85 J [0.47 J]	1.66					
	SL0344	0-0.5	2.31	2.310	2.310		428.40	989.60	
		1-1.5	12.7	12.700		8.800	428.40		3,769.92
		2-2.5	4.9	4.900					
	SL0345	0-0.5	7.43	7.430	7.430		590.60	4,388.16	
		1-1.5	ND(0.603) {0.401}	0.351		0.322	590.60		190.39
		2-2.5	ND(0.587)	0.294					
T021	SL0012	0-0.5	0.334 J	0.334	0.334		294.40	98.33	
		1-1.5	0.75 J	0.750		0.408	294.40		120.12
		2-2.5	0.066 J	0.066					
	SL0013	0-0.5	3.2	3.200	3.200		398.70	1,275.84	
		1-1.5	7.03	7.030		6.745	398.70		2,689.23
		2-2.5	6.46	6.460					
	SL0014	0-0.5	3.45 [2.42] {5.55 [5.38]}	4.200	4.200		582.90	2,448.18	
		1-1.5	4.5	4.500		2.920	582.90		1,702.07
		2-2.5	1.34	1.340					
T022	SL0340	0-0.5	6.4	6.400	6.400		384.20	2,458.88	
		1-1.5	299	299.000		162.600	384.20		62,470.92
		2-2.5	26.2	26.200					
	SL0341	0-0.5	3.02	3.020	3.020		484.90	1,464.40	
		1-1.5	10.5	10.500		44.950	484.90		21,796.26
		2-2.5	79.4	79.400					
	SL0342	0-0.5	70.1 {84.1}	77.100	77.100		450.30	34,718.13	
		1-1.5	15.6	15.600		12.900	450.30		5,808.87
		2-2.5	10.2	10.200					

TABLE D-1

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (PRE-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T023	SL0015	0-0.5	1.19	1.190	1.190		276.40	328.92	
		1-1.5	159	159.000		198.000	276.40		54,727.20
		2-2.5	283 {191}	237.000					
	SL0016	0-0.5	5.5	5.500	5.500		282.80	1,555.40	
		1-1.5	40	40.000		32.050	282.80		9,063.74
		2-2.5	24.1	24.100					
	SL0017	0-0.5	13	13.000	13.000		502.10	6,527.30	
		1-1.5	58.5	58.500		65.750	502.10		33,013.08
		2-2.5	73	73.000					
T024	SL0327	0-0.5	ND(0.767)	0.384	0.384		286.20	109.76	
		1-1.5	0.975	0.975		267.488	286.20		76,554.92
		2-2.5	534	534.000					
	SL0338	0-0.5	12.4	12.400	12.400		398.20	4,937.68	
		1-1.5	46.6	46.600		38.500	398.20		15,330.70
		2-2.5	30.4	30.400					
	SL0339	0-0.5	8.44	8.440	8.440		163.10	1,376.56	
		1-1.5	ND(0.571)	0.286		3.928	163.10		640.62
		2-2.5	16.1 J [4.69 J] {1.92}	7.570					
T025	SL0023	0-0.5	1.8 [1.36]	1.580	1.580		450.60	711.95	
		1-1.5	12.7	12.700		8,506.350	450.60		3,832,961.31
		2-2.5	17000	17000.000					
	SL0024	0-0.5	19	19.000	19.000		389.30	7,396.70	
		1-1.5	32.4	32.400		25.100	389.30		9,771.43
		2-2.5	17.8	17.800					
	SL0025	0-0.5	2.59 {4.61}	3.600	3.600		264.90	953.64	
		1-1.5	0.297	0.297		20.199	264.90		5,350.58
		2-2.5	40.1	40.100					
T026	SL0324	0-0.5	0.377 J	0.377	0.377		495.40	186.77	
		1-1.5	ND(0.606)	0.303		0.336	495.40		166.21
		2-2.5	ND(0.736)	0.368					
	SL0325	0-0.5	51.9	51.900	51.900		277.70	14,412.63	
		1-1.5	87	87.000		73.100	277.70		20,299.87
		2-2.5	52.1 [66.3]	59.200					
	SL0326	0-0.5	4.39 {10.7}	7.545	7.545		604.70	4,562.46	
		1-1.5	5.55	5.550		7.925	604.70		4,792.25
		2-2.5	10.3	10.300					
T027	SL0026	0-0.5	1.75	1.750	1.750		705.50	1,234.63	
		1-1.5	43	43.000		37.825	705.50		26,685.54
		2-2.5	26.5 J {38.8}	32.650					
	SL0027	0-0.5	29.1	29.100	29.100		545.60	15,876.96	
		1-1.5	61.7	61.700		38.900	545.60		21,223.84
		2-2.5	16.1	16.100					
	SL0037	0-0.5	11.8	11.800	11.800		281.90	3,326.42	
		1-1.5	3.1	3.100		3.250	281.30		914.23
		2-2.5	3.4	3.400					
T028	SL0321	0-0.5	ND(0.767)	0.384	0.384		582.90	223.54	
		1-1.5	ND(0.717)	0.359		6.579	494.60		3,254.10
		2-2.5	12.8	12.800					
	SL0322	0-0.5	47.1	47.100	47.100		265.30	12,495.63	
		1-1.5	42.1	42.100		56.825	265.30		15,075.67
		2-2.5	61.5 {81.6}	71.550					
	SL0323	0-0.5	108	108.000	108.000		360.20	38,901.60	
		1-1.5	110	110.000		135.000	282.80		38,178.00
		2-2.5	160 J	160.000					
T029	SL0018	0-0.5	3.61	3.610	3.610		302.10	1,090.58	
		1-1.5	0.89	0.890		1.005	302.10		303.61
		2-2.5	1.12 J	1.120					
	SL0019	0-0.5	91 J [95]	93.000	93.000		423.40	39,376.20	
		1-1.5	90 J	90.000		172.250	423.40		72,930.65
		2-2.5	214 {295}	254.500					
	SL0040	0-0.5	160	160.000	160.000		330.80	52,928.00	
		1-1.5	108	108.000		113.500	330.80		37,545.80
		2-2.5	119	119.000					

TABLE D-1

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (PRE-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T030	SL0318	0-0.5	4.57	4.570	4.570		378.60	1,730.20	
		1-1.5	37.2 [38.4]	37.800		45.350	378.60		17,169.51
		2-2.5	52.9	52.900					
	SL0319	0-0.5	58.6	58.600	58.600		209.80	12,294.28	
		1-1.5	207 {327}	267.000		149.700	209.80		31,407.06
		2-2.5	32.4	32.400					
	SL0320	0-0.5	99.3	99.300	99.300		343.90	34,149.27	
		1-1.5	178	178.000		1,060.000	343.90		364,534.00
		2-2.5	1850 J [2034 J]	1942.000					
	BW-0033	0-0.5	4.5	4.500	4.500		205.40	924.30	
		1-1.5	32	32.000		29.500	205.40		6,059.30
		2-2.5	27	27.000					
	BW-0034	0-0.5	58	58.000	58.000		285.30	16,547.40	
		1-1.5	45	45.000		33.000	285.30		9,414.90
		2-2.5	21	21.000					
	BW-0035	0-0.5	113	113.000	113.000		132.70	14,995.10	
		1-1.5	382	382.000		388.500	132.70		51,553.95
		2-2.5	395	395.000					
T031	SL0038	0-0.5	36	36.000	36.000		359.20	12,931.20	
		1-1.5	1480	1480.000		777.000	359.20		279,098.40
		2-2.5	74	74.000					
	SL0039	0-0.5	23.4 [23.5]	23.450	23.450		346.70	8,130.12	
		1-1.5	77	77.000		57.850	346.70		20,056.60
		2-2.5	40 {37.4}	38.700					
	SL0048	0-0.5	792 J	792.000	792.000		201.00	159,192.00	
		1-1.5	76 J	76.000		65.500	201.00		13,165.50
		2-2.5	55 J	55.000					
T032	SL0315	0-0.5	1188	1188.000	1,188.000		478.20	568,101.60	
		1-1.5	166	166.000		89.000	478.20		42,559.80
		2-2.5	12	12.000					
	SL0316	0-0.5	31.4 {60.3}	45.850	45.850		789.70	36,207.75	
		1-1.5	21	21.000		74.500	789.70		58,832.65
		2-2.5	128	128.000					
	SL0317	0-0.5	363	363.000	363.000		202.70	73,580.10	
		1-1.5	34.6	34.600		46.650	202.70		9,455.96
		2-2.5	58.7	58.700					
	BW-0036	0-0.5	11.3	11.300	11.300		722.10	8,159.73	
		1-1.5	10.5	10.500		129.250	722.10		93,331.43
		2-2.5	248	248.000					
T033	SL0145	0-0.5	3.68	3.680	3.680		377.30	1,388.46	
		1-1.5	8.1	8.100		14.700	377.30		5,546.31
		2-2.5	21.3	21.300					
	SL0146	0-0.5	25	25.000	25.000		677.10	16,927.50	
		1-1.5	17.4 {33.9}	25.650		38.825	677.10		26,288.41
		2-2.5	52	52.000					
	SL0147	0-0.5	109 J	109.000	109.000		505.90	55,143.10	
		1-1.5	24	24.000		29.500	505.90		14,924.05
		2-2.5	35	35.000					
	95-27	0-2	39	39.000	39.000		125.40	4,890.60	
		2-4	50	50.000		44.500	125.40		5,580.30
	36CEB10	0-0.5	146	146.000	146.000		751.30	109,689.80	
		0.5-2	70.7	71.000		102.500	751.30		77,008.25
		2-4	134.0	134.000					
T034	SL0188	0-0.5	2.7 {4.17}	3.435	3.435		211.20	725.47	
		1-1.5	108	108.000		207.500	211.20		43,824.00
		2-2.5	307 J	307.000					
	SL0189	0-0.5	162	162.000	162.000		218.10	35,332.20	
		1-1.5	440	440.000		350.000	218.10		76,335.00
		2-2.5	260 J	260.000					
	SL0190	0-0.5	13000 J	13000.000	13,000.000		250.00	3,250,000.00	
		1-1.5	1220 J	1220.000		860.000	250.00		215,000.00
		2-2.5	500 J	500.000					
	SL0190	0-0.5	13000 J	**0.0375**	0.038		80.30		
		1-1.5	1220 J	**0.0375**		0.038	80.30		
		2-2.5	500 J	**0.0375**					

TABLE D-1

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (PRE-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T034	36CEB9	0-0.5	8.60	8.6000	8.600		61.50	528.90	
		0.5-2	42.8	42.8000		116.900	61.50		7,189.35
		2-4	191	191.0000					
	36CEB9	0-0.5	8.60	**0.0375**	0.038		254.60		
		0.5-2	42.8	**0.0375**		0.038	254.60		
		2-4	191	**0.0375**					
	36CEB8	0-0.5	9.25	**0.0375**	0.038		299.60	11.24	
		0.5-2	49.5	**0.0375**		0.038	299.60		11.24
		2-4	84.4	**0.0375**					
T035	SL0154	0-0.5	22.1	**0.0375**	0.038		132.00	4.95	
		1-1.5	24.1 J	**0.0375**		0.038	132.00		4.95
		2-2.5	51.2 J {23.6}	**0.0375**					
	T35-TB	0-0.5	119	**0.0375**	0.038		see 3-6C-EB-7		
		1-1.5	71.6	**0.0375**		0.038	3-6C-EB-8		
		2-2.5	55.2	**0.0375**			and SL0154		
	T35-MB	0-0.5	84.2[85.6]	**0.0375**	0.038		see 3-6C-EB-7		
		1-1.5	62.5	**0.0375**		0.038	3-6C-EB-8		
		2-2.5	335	**0.0375**			and SL0154		
	36CEB7	0-2	96.5	**0.0375**	0.038		351.70	13.19	
		2-4	136	**0.0375**		0.038	329.40		12.35
	Strip Removed	0-0.5	0.0375	**0.0375**	0.038		508.31	19.06	
	East of Bldg. 68	1-3	0.0375	**0.0375**		0.038	508.31		19.06
	Bldg. 68	0-0.5	0.0375	**0.0375**	0.038		4,082.70	153.10	
		1-3	0.0375	**0.0375**		0.038	4,112.90		154.23
	Strip Removed	0-0.5	0.0375	**0.0375**	0.038		2,462.10	92.33	
	West of Bldg. 68	1-3	0.0375	**0.0375**		0.038	2,462.10		92.33
	36CEB12	0-0.5	45.2	**0.0375**	0.038		233.40	8.75	
		0.5-2	81.6	**0.0375**		0.038	224.50		8.42
		2-4	168	**0.0375**					
T039	SL0155	0-0.5	39.2 J [19.5 J]	**0.0375**	0.038		17.70	0.66	
		1-1.5	60	**0.0375**		0.038	18.85		0.71
		2-2.5	277	**0.0375**					
	SL0157	0-0.5	59	**0.0375**	0.038		290.80	10.91	
		1-1.5	490 {539}	**0.0375**		0.038	323.70		12.14
		2-2.5	360	**0.0375**					
	SL0158	0-0.5	176	**0.0375**	0.038		105.80	3.97	
		1-1.5	53	**0.0375**		0.038	105.80		3.97
		2-2.5	110	**0.0375**					
	3-6C-EB-27	0-0.5	255	**0.0375**	0.038		288.70	10.83	
		0.5-1	271	**0.0375**					
		1-2	400	**0.0375**		0.038	288.70		10.83
		2-4	217	**0.0375**					
	3-6C-S-27	0-0.5	0.038	**0.0375**	0.038		54.00	2.03	
	3-6C-EB-22	0-0.5	464	**0.0375**	0.038		248.50	9.32	
		0.5-1	622	**0.0375**					
		1-2	416	**0.0375**		0.031	252.10		7.88
	3-6C-S-22	0-0.5	0.038	**0.0375**	0.038		67.90	2.55	
	3-6C-EB-23	0-0.5	405	**0.0375**	0.038		210.00	7.88	
		0.5-1	316	**0.0375**					
		1-2	40.2	**0.0375**		31.600	210.00		6,636.00
	3-6C-S-23	0-0.5	0.038	**0.0375**	0.038		136.70	5.13	
	3-6C-EB-24	0-0.5	71.7	71.700	49.350		288.60	14,242.41	
		0.5-1	27	27.000					
		1-2	9.53	10.000		15.100	325.90		4,921.09
	3-6C-S-24	0-0.5	0.038	**0.0375**	3.800		142.00	539.60	
	3-6C-EB-25	0-0.5	308	**0.0375**	0.038		287.40	10.78	
		0.5-1	59.3	**0.0375**					
		1-2	29.4	29.400		30.150	298.50		8,999.78
		2-4	30.9	30.900					
	3-6C-S-25	0-0.5	3.79[7.51]	**0.0375**	5.650		38.50	217.53	
	3-C6-EB-26	0-2	60.5	60.200	60.200		347.00	20,889.40	
		2-4	1.72	1.720		1.720	596.80		1,026.50
	3-6C-S-26	0-0.5	4.4	4.400	4.400		362.50	1,595.00	
T040	SL0312	0-0.5	9.81 [9.2]	**0.0375**	0.038		102.00	3.83	
		1-1.5	22.6	**0.0375**		0.038	135.40		5.08
		2-2.5	102	**0.0375**					

TABLE D-1

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (PRE-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T040	SL0313	0-0.5	486	**0.0375**	0.038		364.30	13.66	
		1-1.5	53.6	**0.0375**		0.038	366.50		13.74
		2-2.5	13.8	**0.0375**					
	SL0314	0-0.5	183 {632}	**0.0375**	0.038		216.00	8.10	
		1-1.5	145	**0.0375**		0.038	216.00		8.10
		2-2.5	65	**0.0375**					
T041	SL0148	0-0.5	14 {12.4}	13.200	13.200		23.50	310.20	
		1-1.5	28	28.000		29.500	30.50		899.75
		2-2.5	31	31.000					
	SL0149	0-0.5	31.2	31.200	31.200		327.30	10,211.76	
		1-1.5	51	51.000		37.000	364.40		13,482.80
		2-2.5	23 J	23.000					
	SL0150	0-0.5	240 [220 J]	**0.0375**	0.038		214.90	8.06	
		1-1.5	1240	**0.0375**		0.038	214.90		8.06
		2-2.5	100	**0.0375**					
T042	SL0289	0-0.5	5.48 [4.16]	**0.0375**	0.038		126.50	4.74	
		1-1.5	24 {98.9}	**0.0375**		0.038	185.00		6.94
		2-2.5	280 J	**0.0375**					
	SL0290	0-0.5	274	**0.0375**	0.038		442.60	16.60	
		1-1.5	162	**0.0375**		0.038	452.70		16.98
		2-2.5	118	**0.0375**					
	SL0311	0-0.5	55.6	**0.0375**	0.038		89.50	3.36	
		1-1.5	18.5	**0.0375**		0.038	89.50		3.36
		2-2.5	9.16	**0.0375**					
T043	SL0159	0-0.5	4.78	4.780	4.780		82.20	392.92	
		1-1.5	6.2	6.200		5.550	151.50		840.83
		2-2.5	4.9 J	4.900					
	SL0160	0-0.5	28.5 {20.5}	24.500	24.500		284.10	6,960.45	
		1-1.5	82	82.000		75.500	306.80		23,163.40
		2-2.5	69	69.000					
	SL0161	0-0.5	53	53.000	53.000		102.60	5,437.80	
		1-1.5	62	62.000		38.000	102.60		3,898.80
		2-2.5	14 J	14.000					
	36CEB29	0-0.5	59.4	59.400	39.480		390.30	15,409.04	
		0.5-1	19.56	19.560					
		1-2	109.8	109.800		61.400	390.90		24,001.26
		2-4	13	13.000					
T044	SL0286	0-0.5	20 {7.36}	13.680	13.680		83.20	1,138.18	
		1-1.5	6.74	6.740		5.160	110.10		568.12
		2-2.5	3.58	3.580					
	SL0287	0-0.5	23	23.000	23.000		164.10	3,774.30	
		1-1.5	24.4	24.400		20.900	164.10		3,429.69
		2-2.5	17.4	17.400					
	SL0288	0-0.5	142	**0.0375**	0.038		145.20	5.45	
		1-1.5	48	48.000		109.000	145.20		15,826.80
		2-2.5	170	170.000					
	36CEB28	0-0.5	85	85.000	59.000		290.20	17,121.80	
		0.5-1	33.3	33.000					
		1-2	62.5	63.000		31.280	292.10		9,136.89
		2-4	ND(0.0595)	0.030					
T045	SL0164	0-0.5	18.8	18.800	18.800		108.10	2,032.28	
		1-1.5	12.4 {15.8}	14.100		57.050	230.40		13,144.32
		2-2.5	100	100.000					
	SL0165	0-0.5	36	36.000	36.000		171.30	6,166.80	
		1-1.5	189	189.000		101.350	180.50		18,293.68
		2-2.5	13.7	13.700					
	SL0166	0-0.5	85	85.000	85.000		91.10	7,743.50	
		1-1.5	41	41.000		36.500	91.10		3,325.15
		2-2.5	32	32.0000					
T046	SL0283	0-0.5	59	59.000	59.000		333.10	19,652.90	
		1-1.5	210	210.000		105.615	373.00		39,394.40
		2-2.5	1.23	1.2300					
	SL0284	0-0.5	73 [92]	82.500	82.500		446.60	36,844.50	
		1-1.5	60 {36.9}	48.450		46.225	446.60		20,644.09
		2-2.5	44	44.000					

TABLE D-1

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (PRE-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T046	SL0285	0-0.5	21.9	21.900	21.900		431.40	9,447.66	
		1-1.5	1.21	1.210		7.205	432.20		3,114.00
		2-2.5	13.2	13.200					
T047	SL0151	0-0.5	30.4	30.400	30.400		498.80	15,163.52	
		1-1.5	58.2	58.200		29.500	498.80		14,714.60
		2-2.5	0.8	0.800					
	SL0152	0-0.5	40	40.000	40.000		285.20	11,408.00	
		1-1.5	0.88	0.880		2.310	285.20		658.81
		2-2.5	3.74	3.740					
	SL0153	0-0.5	28.4	28.400	28.400		255.60	7,259.04	
		1-1.5	156 {57.1}	156.000		107.500	255.60		27,477.00
		2-2.5	59	59.000					
	BW-0030	0-6"	27	27.000	27.000		189.70	5,121.90	
		12-18"	27	27.000		20.500	189.70		3,888.85
		24-30"	14	14.000					
	BW-0031	0-6"	2.7	2.700	2.700		370.00	999.00	
		12-18"	0.8	0.800		1.900	370.00		703.00
		24-30"	3	3.000					
	BW-0032	0-6"	2.2	2.200	2.200		256.80	564.96	
		12-18"	0.8	0.800		1.000	256.80		256.80
		24-30"	1.2	1.200					
T048	SL0268	0-0.5	16.5	16.500	16.500		447.60	7,385.40	
		1-1.5	47	47.000		35.300	447.60		15,800.28
		2-2.5	23.6	23.600					
	SL0269	0-0.5	40	40.000	40.000		155.40	6,216.00	
		1-1.5	60	60.000		41.950	155.40		6,519.03
		2-2.5	23.9	23.900					
	SL0270	0-0.5	9.2	9.200	9.200		139.70	1,285.24	
		1-1.5	17.2 {13.1}	15.150		9.825	139.70		1,372.55
		2-2.5	4.5	4.500					
T049	SL0156	0-0.5	60	60.000	60.000		462.90	27,774.00	
		1-1.5	3.43	3.430		4.415	462.90		2,043.70
		2-2.5	5.4 J	5.400					
	SL0162	0-0.5	3.44	3.440	3.440		387.20	1,331.97	
		1-1.5	30.2	30.200		17.250	387.20		6,679.20
		2-2.5	4.3 J	4.300					
	SL0163	0-0.5	74 [68]	71.000	71.000		831.00	59,001.00	
		1-1.5	11.5	11.500		14.250	831.00		11,841.75
		2-2.5	13.2 {20.8}	17.000					
T050	SL0265	0-0.5	2.84	2.840	2.840		848.20	2,408.89	
		1-1.5	7.4 J	7.400		3.836	848.20		3,253.27
		2-2.5	0.271J	0.271					
	SL0266	0-0.5	81 [86]	83.500	83.500		904.80	75,550.80	
		1-1.5	2.2	2.200		5.000	904.80		4,524.00
		2-2.5	7.8	7.800					
	SL0267	0-0.5	2.7	2.700	2.700		388.40	1,048.68	
		1-1.5	0.316 {0.59}	0.453		0.302	388.40		117.10
		2-2.5	0.15	0.150					
T051	SL0175	0-0.5	3.26	3.260	3.260		187.80	612.23	
		1-1.5	9.9	9.900		479.200	187.80		89,993.76
		2-2.5	87 {1810}	948.500					
	SL0176	0-0.5	28.7 [36.2]	32.450	32.450		14.50	470.53	
		1-1.5	1.05	1.050		1.050	14.50		15.23
		2-2.5	1.05	1.050					
						Sum		6,440,856.95	7,113,445.68
						Section Area (ft2)		76,640.00	
						Spatial Average 0-1 (ppm)		84.04	
						Spatial Average 1-3 (ppm)		92.82	

Note:
Assumes Building 68 removal complete and a backfill concentration of 0.0375 ppm.
See Notes following Table D-14.

TABLE D-2

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (PRE-REMOVAL) - AREA 2

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T051	SL0175	0-0.5	3.26	3.260	3.260		689.20	2,246.79	
		1-1.5	9.9	9.900		479.200	689.20		330,264.64
		2-2.5	87 {1810}	948.500					
	SL0176	0-0.5	28.7 [36.2]	32.450	32.450		1,124.50	36,490.03	
		1-1.5	1.05	1.050		1.050	1,124.50		1,180.73
		2-2.5	1.05	1.050					
	SL0187	0-0.5	14	14.000	14.000		331.50	4,641.00	
		1-1.5	0.318	0.318		1.359	331.50		450.51
		2-2.5	2.4	2.400					
T052	SL0244	0-0.5	4.96 J	4.960	4.960		589.30	2,922.93	
		1-1.5	13	13.000		6.776	589.30		3,992.95
		2-2.5	0.383 {0.72}	0.552					
	SL0245	0-0.5	360	360.000	360.000		540.80	194,688.00	
		1-1.5	24	24.000		20.000	540.80		10,816.00
		2-2.5	16	16.000					
	SL0246	0-0.5	180	180.000	180.000		456.70	82,206.00	
		1-1.5	84	84.000		51.000	456.70		23,291.70
		2-2.5	18	18.000					
T053	SL0181	0-0.5	22.9	22.900	22.900		833.10	19,077.99	
		1-1.5	27 {81}	54.000		32.600	833.10		27,159.06
		2-2.5	11.2	11.200					
	SL0185	0-0.5	43.5	43.500	43.500		777.70	33,829.95	
		1-1.5	2.1	2.100		2.560	777.70		1,990.91
		2-2.5	3.02	3.020					
	SL0186	0-0.5	19.7	19.700	19.700		40.30	793.91	
		1-1.5	1.04	1.040		0.790	40.30		31.82
		2-2.5	0.539	0.539					
T054	SL0241	0-0.5	4.03	4.030	4.030		602.70	2,428.88	
		1-1.5	2.22 J	2.220		5.860	602.70		3,531.82
		2-2.5	9.5 J	9.500					
	SL0242	0-0.5	104 [104]	104.000	104.000		690.00	71,760.00	
		1-1.5	31	31.000		53.000	696.70		36,925.10
		2-2.5	75	75.000					
	SL0243	0-0.5	30 J{69.3}	49.650	49.650		348.10	17,283.17	
		1-1.5	7.6	7.600		7.300	377.60		2,756.48
		2-2.5	7 J	7.000					
T055	SL0173	0-0.5	8.8	8.800	8.800		741.70	6,526.96	
		1-1.5	49	49.000		45.500	1,132.20		51,515.10
		2-2.5	42	42.000					
	SL0174	0-0.5	66 J[65 J] {128}	86.333	86.333		700.10	60,441.97	
	SL0177	0-0.5	20.2 J	20.200	20.200		263.40	5,320.68	
		1-1.5	2.2	2.200		2.200	536.90		1,181.18
						Sum		540,658.25	495,087.99
						Section Area (ft2)		8,644.40	
						Spatial Average 0-1 (ppm)		62.54	
						Spatial Average 1-3 (ppm)		57.27	

Note:
See Notes following Table D-14.

TABLE D-3

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (PRE-REMOVAL) - AREA 3

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T055	SL0173	0-0.5	8.8	8.800	8.800		180.30	1,586.64	
		1-1.5	49	49.000		45.500	234.70		10,678.85
		2-2.5	42	42.000					
	SL0174	0-0.5	66 J [65 J] {128}	86.333	86.333		105.00	9,065.00	
	SL0177	0-0.5	20.2 J	20.200	20.200		116.80	2,359.36	
		1-1.5	2.2	2.200		2.200	155.20		341.44
T056	SL0238	0-0.5	7	7.000	7.000		688.90	4,822.30	
		1-1.5	10.4	10.400		5.470	688.90		3,768.28
		2-2.5	0.54	0.540					
	SL0239	0-0.5	18.1 J	18.100	18.100		583.10	10,554.11	
		1-1.5	7.3 {12.3}	9.800		10.750	594.70		6,393.03
		2-2.5	11.7	11.700					
	SL0240	0-0.5	2.2 J	2.200	2.200		813.50	1,789.70	
		1-1.5	1	1.000		1.690	813.50		1,374.82
		2-2.5	2.38 J	2.380					
T057	SL0178	0-0.5	29 J	29.000	29.000		749.20	21,726.80	
		1-1.5	0.029	0.029		0.021	787.50		16.14
		2-2.5	ND(0.024)	0.012					
	SL0179	0-0.5	21 J [23 J] {42.9}	28.967	28.967		641.50	18,582.12	
		1-1.5	5.2 J	5.200		3.850	736.40		2,835.14
		2-2.5	2.5 J	2.500					
	SL0180	0-0.5	2.5 J	2.500	2.500		524.20	1,310.50	
		1-1.5	1.39 J	1.390		1.160	559.60		649.14
		2-2.5	0.93 J	0.930					
	LS-C-13	0-0.5	56.00	56.000	56.000		782.60	43,825.60	
T058	SL0235	0-0.5	17	17.000	17.000		776.10	13,193.70	
		1-1.5	17.8	17.800		435.650	929.60		404,980.24
		2-2.5	317 [1390 J]	853.500					
	SL0236	0-0.5	70 {96.4}	83.200	83.200		404.60	33,662.72	
		1-1.5	26 J	26.000		13.150	593.10		7,799.27
		2-2.5	0.3	0.300					
	SL0237	0-0.5	9.2 J	9.200	9.200		413.30	3,802.36	
		1-1.5	3.8 J	3.800		2.725	685.30		1,867.44
		2-2.5	1.65 J	1.650					
T059	SL0167	0-0.5	7.4 {10.7}	9.050	9.050		327.50	2,963.88	
		1-1.5	8.6	8.600		44.800	439.00		19,667.20
		2-2.5	81 J	81.000					
	SL0168	0-0.5	71 [66]	68.500	68.500		594.80	40,743.80	
		1-1.5	27.6	27.600		30.100	704.50		21,205.45
		2-2.5	32.6	32.600					
	SL0169	0-0.5	0.99 J	0.990	0.990		444.50	440.06	
		1-1.5	24.7 J	24.700		15.550	457.60		7,115.68
		2-2.5	6.4 J	6.400					
	LS-SOIL	SURFA	23.90	23.900	23.900		381.20	9,110.68	
T060	SL0232	0-0.5	36 [39 J]	37.500	37.500		393.00	14,737.50	
		1-1.5	5.6	5.600		152.800	393.00		60,050.40
		2-2.5	300 J	300.000					
	SL0233	0-0.5	350	350.000	350.000		392.00	137,200.00	
		1-1.5	22.5 J	22.500		18.900	486.10		9,187.29
		2-2.5	13.7 {16.9 J}	15.300					
	SL0234	0-0.5	0.99	0.990	0.990		217.90	215.72	
		1-1.5	304	304.000		304.000	270.90		82,353.60
T061	SL0182	0-0.5	116	116.000	116.000		404.30	46,898.80	
		1-1.5	156 J	156.000		95.000	521.50		49,542.50
		2-2.5	34 J	34.000					
	SL0183	0-0.5	94 J	94.000	94.000		318.70	29,957.80	
		1-1.5	157 J	157.000		127.000	456.20		57,937.40
		2-2.5	97	97.000					
	SL0184	0-0.5	12.9 J [12.1 J] {29.1}	18.033	18.033		414.80	7,480.23	
		1-1.5	280 J	280.000		285.000	608.30		173,365.50
		2-2.5	290	290.000					
	LS-C-12	0-0.5	1.20	1.200	1.200		875.00	1,050.00	

TABLE D-3

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (PRE-REMOVAL) - AREA 3

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T062	SL0229	0-0.5	7	7.000	7.000		678.70	4,750.90	
		1-1.5	11.2	11.200		129.100	710.60		91,738.46
		2-2.5	196 {298}	247.000					
	SL0230	0-0.5	9.8	9.800	9.800		552.40	5,413.52	
		1-1.5	73	73.000		58.500	679.00		39,721.50
		2-2.5	44	44.000					
	SL0231	0-0.5	1.08 J	1.080	1.080		562.60	607.61	
		1-1.5	26.1 J	26.100		27.450	855.50		23,483.48
		2-2.5	28.8	28.800					
T063	SL0170	0-0.5	5.1	5.100	5.100		859.00	4,380.90	
		1-1.5	20.3	20.300		20.300	859.00		17,437.70
	SL0171	0-0.5	1100	1100.000	1,100.000		842.40	926,640.00	
		1-1.5	1440 J {1480}	1460.000		1,460.000	842.40		1,229,904.00
	SL0172	0-0.5	2.03	2.030	2.030		617.20	1,252.92	
		1-1.5	86 J	86.000		56.000	617.20		34,563.20
		2-2.5	26 J	26.000					
	LS-C-11	0-0.5	2.40	2.400	2.400		502.90	1,206.96	
						Sum		1,401,332.17	2,357,977.14
						Section Area (ft2)		16,133.50	
						Spatial Average 0-1 (ppm)		86.86	
						Spatial Average 1-3 (ppm)		146.15	

Note:
See Notes following Table D-14.

TABLE D-4

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (PRE-REMOVAL) - AREA 4

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T056	SL0517	0-0.5	8.3 J	8.300	8.300		321.40	2,667.62	
		1-1.5	ND(0.78)	0.390		0.360	330.90		119.12
		2-2.5	ND(0.66)	0.330					
	SL0518	0-0.5	11 [12] {8.1 [9.03]}	10.033	10.033		210.90	2,115.85	
		1-1.5	26	26.000		24.000	253.90		6,093.60
		2-2.5	22	22.000					
	SL0519	0-0.5	83	83.000	83.000		317.10	26,319.30	
		1-1.5	22	22.000		57.500	387.20		22,264.00
		2-2.5	93	93.000					
	SS-1	0-0.5	9.85	9.850	9.850		132.40	1,304.14	
T057	SL0136	0-0.5	2.39	2.390	2.390		431.80	1,032.00	
		1-1.5	5.7	5.700		5.085	436.80		2,221.13
		2-2.5	2.8 {6.14}	4.470					
	SL0137	0-0.5	18.1 [21.5]	19.800	19.800		376.20	7,448.76	
		1-1.5	16.5	16.500		9.410	376.20		3,540.04
		2-2.5	2.32	2.320					
	SL0138	0-0.5	12.8	12.800	12.800		184.60	2,362.88	
		1-1.5	93	93.000		108.000	191.40		20,671.20
		2-2.5	123 J	123.000					
	SS-28	0-0.5	4.65	4.650	4.650		4.30	20.00	
T058	SL0520	0-0.5	7.9 {30.3}	19.100	19.100		280.90	5,365.19	
		1-1.5	ND(0.74)	0.370		0.358	280.90		100.42
		2-2.5	ND(0.69)	0.345					
	SL0521	0-0.5	26	26.000	26.000		250.40	6,510.40	
		1-1.5	19	19.000		18.500	250.40		4,632.40
		2-2.5	18	18.000					
	SL0522	0-0.5	12	12.000	12.000		658.20	7,898.40	
		1-1.5	0.66	0.660		0.880	660.50		581.24
		2-2.5	1.1	1.100					
T059	SL0133	0-0.5	5.4	5.400	5.400		326.50	1,763.10	
		1-1.5	7.3 J {8.46}	7.880		8.140	326.50		2,657.71
		2-2.5	8.4	8.400					
	SL0134	0-0.5	11.3 [10.7]	11.000	11.000		601.00	6,611.00	
		1-1.5	42.1	42.100		30.850	601.00		18,540.85
		2-2.5	19.6	19.600					
	SL0135	0-0.5	9 J	9.000	9.000		529.50	4,765.50	
		1-1.5	0.89	0.890		0.628	529.50		332.53
		2-2.5	0.366	0.366					
T060	SL0523	0-0.5	0.53 J	0.530	0.530		566.30	300.14	
		1-1.5	15	15.000		12.350	566.30		6,993.81
		2-2.5	9.7	9.700					
	SL0524	0-0.5	14.8	14.800	14.800		494.50	7,318.60	
		1-1.5	0.56	0.560		0.430	494.50		212.64
		2-2.5	0.3 J	0.300					
	SL0525	0-0.5	9.1 J {6.53}	7.815	7.815		388.70	3,037.69	
		1-1.5	1.1	1.100		0.681	388.70		264.80
		2-2.5	ND(0.53) [ND(0.52)]	0.263					
T061	SL0139	0-0.5	6.37	6.370	6.370		671.30	4,276.18	
		1-1.5	82	82.000		62.000	671.30		41,620.60
		2-2.5	42	42.000					
	SL0140	0-0.5	31	31.000	31.000		475.80	14,749.80	
		1-1.5	21.4	21.400		27.475	475.80		13,072.61
		2-2.5	27.8 {39.3}	33.550					
	SL0141	0-0.5	4.9 J	4.900	4.900		496.40	2,432.36	
		1-1.5	5.1	5.100		3.095	496.40		1,536.36
		2-2.5	1.09	1.090					
T062	SL0526	0-0.5	4.03	4.030	4.030		693.30	2,794.00	
		1-1.5	6.92	6.920		4.991	693.30		3,460.26
		2-2.5	3.062 J	3.062					
	SL0527	0-0.5	41	41.000	41.000		629.50	25,809.50	
		1-1.5	11.9	11.900		12.400	629.50		7,805.80
		2-2.5	14 {11.8}	12.900					
	SL0528	0-0.5	3.17	3.170	3.170		401.70	1,273.39	
		1-1.5	0.446 J	0.446		0.598	401.70		240.02
		2-2.5	0.749 J	0.749					

TABLE D-4

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (PRE-REMOVAL) - AREA 4

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T063	SL0142	0-0.5	22.2 {20.7}	21.450	21.450		305.20	6,546.54	
	SL0143	0-0.5	62.1	62.100	62.100		571.30	35,477.73	
		1-1.5	11.8	11.800		15.950	878.90		14,018.46
		2-2.5	20.1	20.100					
	SL0144	0-0.5	8.3	8.300	8.300		457.10	3,793.93	
		1-1.5	37	37.000		24.050	459.10		11,041.36
		2-2.5	11.1	11.100					
T054	SL0514	0-0.5	17	17.000	17.000		77.90	1,324.30	
		1-1.5	12	12.000		7.750	77.90		603.73
		2-2.5	3.5	3.500					
T055	SL0130	0-0.5	23.4 {36}	29.700	29.700		498.60	14,808.42	
		1-1.5	35	35.000		25.250	498.60		12,589.65
		2-2.5	15.5	15.500					
	SL0131	0-0.5	24	24.000	24.000		101.70	2,440.80	
		1-1.5	24.9	24.900		17.900	101.70		1,820.43
		2-2.5	10.9	10.900					
	SL0132	0-0.5	38.2	38.200	38.200				
		1-1.5	5.2	5.200		4.850			
		2-2.5	4.5	4.500					
						Sum		202,567.52	197,034.74
						Section Area (ft2)		11,454.50	
						Spatial Average 0-1 (ppm)		17.68	
						Spatial Average 1-3 (ppm)		17.20	

Note:
See Notes following Table D-14.

TABLE D-5

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (PRE-REMOVAL) - AREA 5

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T049	SL0122	0-0.5	8.9 J	8.900	8.900		223.90	1,992.71	
		1-1.5	53 J	53.000		1,176.500	223.90		263,418.35
		2-2.5	2300	2300.000					
	SL0123	0-0.5	48 [67]	57.500	57.500		81.00	4,657.50	
		1-1.5	72	72.000		194.000	88.80		17,227.20
		2-2.5	316 J	316.000					
	SL0124	0-0.5	35900 {6920}	21410.000	21,410.000		8.30	177,703.00	
T050	SL0488	0-0.5	14.5	14.500	14.500		521.00	7,554.50	
		1-1.5	67 {33.2}	50.100		32.550	521.00		16,958.55
		2-2.5	15	15.000					
	SL0489	0-0.5	52	52.000	52.000		355.50	18,486.00	
		1-1.5	36	36.000		28.350	355.50		10,078.43
		2-2.5	20.7 J	20.700					
	SL0490	0-0.5	112	112.000	112.000		17.00	1,904.16	
		1-1.5	42	42.000		29.700	17.00		504.90
		2-2.5	17.4	17.400					
T051	SL0127	0-0.5	5.8 {3.98}	4.890	4.890		552.70	2,702.70	
		1-1.5	412	412.000		239.500	552.70		132,371.65
		2-2.5	67	67.000					
	SL0128	0-0.5	35.7 [32.5]	34.100	34.100		493.90	16,841.99	
		1-1.5	41	41.000		21.460	493.90		10,599.09
		2-2.5	1.92	1.920					
	SL0129	0-0.5	72	72.000	72.000		257.40	18,532.80	
		1-1.5	16.3	16.300		9.060	257.40		2,332.04
		2-2.5	1.82	1.820					
T052	SL0511	0-0.5	1.8	1.800	1.800		259.50	467.10	
		1-1.5	ND(0.85)	0.425		0.448	259.50		116.13
		2-2.5	ND(0.94)	0.470					
	SL0512	0-0.5	6 J [2.3 J]	4.150	4.150		503.90	2,091.19	
		1-1.5	1.2	1.200		0.818	503.90		411.94
		2-2.5	ND(0.87)	0.435					
	SL0513	0-0.5	77 J	77.000	77.000		86.70	6,675.90	
		1-1.5	93	93.000		63.750	86.70		5,527.13
		2-2.5	35 [34]	34.500					
T053	SL0115	0-0.5	26.5	26.500	26.500		300.80	7,971.20	
		1-1.5	2.49	2.490		1.575	300.80		473.76
		2-2.5	0.66	0.660					
	SL0125	0-0.5	56 {46.3}	51.150	51.150		128.70	6,583.01	
		1-1.5	56	56.000		67.500	128.70		8,687.25
		2-2.5	79	79.000					
	SL0126	0-0.5	116	116.000	116.000		109.20	12,667.20	
		1-1.5	107	107.000		62.400	109.20		6,814.08
		2-2.5	17.8	17.800					
T054	SL0514	0-0.5	17	17.000	17.000		328.10	5,577.70	
		1-1.5	12	12.000		7.750	328.10		2,542.78
		2-2.5	3.5	3.500					
	SL0515	0-0.5	110	110.000	110.000		345.40	37,994.00	
		1-1.5	240	240.000		395.000	345.40		136,433.00
		2-2.5	550	550.000					
	SL0516	0-0.5	72	72.000	72.000		347.40	25,012.80	
		1-1.5	86 J {70.6 J}	78.300		114.150	347.40		39,655.71
		2-2.5	150	150.000					
						Sum		355,415.46	654,151.98
						Section Area (ft2)		4,920.40	
						Spatial Average 0-1 (ppm)		72.23	
						Spatial Average 1-3 (ppm)		132.95	

Note:
See Notes following Table D-14.

TABLE D-6

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (PRE-REMOVAL) - AREA 6

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T019	SL0081	0-0.5	0.69	0.690	0.690		41.20	28.43	
		1-1.5	1.53 J	1.530		2.790	41.20		114.95
		2-2.5	4.3 J {3.8}	4.050					
	SL0082	0-0.5	3.5 J	3.500	3.500		111.80	391.30	
		1-1.5	4.84 J	4.840		5.555	131.40		729.93
		2-2.5	6.27 J	6.270					
	SL0083	0-0.5	1 J	1.000	1.000		135.20	135.20	
		1-1.5	20.8 J	20.800		20.800	187.70		3,904.16
	RB-5	0-0.5	1.00	1.000	1.000		609.20	609.20	
T020	SL0446	0-0.5	0.878	0.878	0.878		577.70	507.22	
		1-1.5	2.26	2.260		2.915	618.30		1,802.34
		2-2.5	3.57	3.570					
	SL0447	0-0.5	2.09	2.090	2.090		468.60	979.37	
		1-1.5	3.18	3.180		3.788	966.40		3,660.24
		2-2.5	2.74 {6.05}	4.395					
T021	SL0074	0-0.5	0.78	0.780	0.780		427.20	333.22	
		1-1.5	1.37 J	1.370		2.195	441.60		969.31
		2-2.5	3.02	3.020					
	SL0075	0-0.5	1.98 J {2.9}	2.440	2.440		711.80	1,736.79	
		1-1.5	4.96	4.960		8.780	787.00		6,909.86
		2-2.5	12.6	12.600					
	SL0076	0-0.5	51 J	51.000	51.000		421.90	21,516.90	
		1-1.5	0.38	0.380		0.249	451.70		112.47
		2-2.5	0.118	0.118					
	RB-4-3	0-1	4.1	4.100	4.100		268.80	1,102.08	
	RB-4-6	0-1	29	29.000	29.000		132.80	3,851.20	
	RB-4-9	0-1	76	76.000	76.000		506.10	38,463.60	
T022	SL0449	0-0.5	ND(0.634)	0.317	0.317		283.70	89.93	
		1-1.5	1.91 J	0.298		0.292	442.00		129.06
		2-2.5	ND(0.573)	0.287					
	SL0450	0-0.5	3.38	3.380	3.380		358.10	1,210.38	
		1-1.5	16.1	16.100		17.493	525.90		9,199.74
		2-2.5	3.82 [3.04] {49.8}	18.887					
	SL0451	0-0.5	5625	5625.000	5,625.000		881.20	4,956,750.00	
		1-1.5	631	631.000		333.430	1,326.90		442,428.27
		2-2.5	35.86	35.860					
T023	SL0084	0-0.5	0.73 J	0.730	0.730		654.50	477.79	
		1-1.5	1.97 J	1.970		5.835	654.50		3,819.01
		2-2.5	9.7 J	9.700					
	SL0085	0-0.5	2.72 J {4.61}	3.665	3.665		813.80	2,982.58	
		1-1.5	7.7 J	7.700		21.850	813.80		17,781.53
		2-2.5	36	36.000					
	SL0086	0-0.5	5.9	5.900	5.900		1,535.80	9,061.22	
		1-1.5	570	570.000		520.000	1,554.30		808,236.00
		2-2.5	470 J	470.000					
T024	SL0452	0-0.5	4.5 {8.01}	6.255	6.255		874.40	5,469.37	
		1-1.5	2.22	2.220		3.910	874.40		3,418.90
		2-2.5	5.6	5.600					
	SL0453	0-0.5	23.5	23.500	23.500		267.80	6,293.30	
		1-1.5	41	41.000		54.500	267.80		14,595.10
		2-2.5	68	68.000					
	SL0454	0-0.5	37	37.000	37.000		473.90	17,534.30	
		1-1.5	300	300.000		320.000	479.60		153,472.00
		2-2.5	340	340.000					
T025	SL0091	0-0.5	2.54	2.540	2.540		367.20	932.69	
		1-1.5	11	11.000		11.200	466.30		5,222.56
		2-2.5	11.4	11.400					
	SL0092	0-0.5	3.7 [3.28] {2.5}	3.160	3.160		508.80	1,607.81	
		1-1.5	4.2	4.200		6.000	851.00		5,106.00
		2-2.5	7.8	7.800					
	SL0093	0-0.5	104	104.000	104.000		147.60	15,350.40	
	RB-3-3	0-1	14	14.000	14.000				
	RB-3-6	0-1	18	18.000	18.000		40.00	720.00	
	RB-3-9	0-1	39	39.000	39.000		615.80	24,016.20	

TABLE D-6

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (PRE-REMOVAL) - AREA 6

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T026	SL0455	0-0.5	1.64	1.640	1.640		531.30	871.33	
		1-1.5	3.55	3.550		4.655	598.90		2,787.88
		2-2.5	5.76	5.760					
	SL0456	0-0.5	7.06	7.060	7.060		341.70	2,412.40	
		1-1.5	2.4 {4.45}	3.425		4.213	566.10		2,384.70
		2-2.5	5	5.000					
	SL0457	0-0.5	6	6.000	6.000		284.50	1,707.00	
		1-1.5	ND(0.52) J	0.260		0.370	349.10		129.17
		2-2.5	ND(0.52) [0.7 J]	0.480					
T027	SL0067	0-0.5	1.72	1.720	1.720		502.80	864.82	
		1-1.5	1.67	1.670		2.590	502.80		1,302.25
		2-2.5	3.51 J	3.510					
	SL0077	0-0.5	4.7 J[3.5 J]	4.100	4.100		678.20	2,780.62	
		1-1.5	6 {9.1}	7.550		7.550	678.20		5,120.41
	SL0087	0-0.5	1.68	1.680	1.680		312.50	525.00	
		1-1.5	3.26 J	3.260		2.250	312.50		703.13
		2-2.5	1.24	1.240					
T028	SL0458	0-0.5	ND(0.74)	0.370	0.370		367.00	135.79	
		1-1.5	1.6	1.600		1.000	367.00		367.00
		2-2.5	ND(0.8)	0.400					
	SL0459	0-0.5	4.8	4.800	4.800		395.80	1,899.84	
		1-1.5	5.6	5.600		3.800	395.80		1,504.04
		2-2.5	2	2.000					
	SL0460	0-0.5	1.8	1.800	1.800		832.20	1,497.96	
		1-1.5	21.5 {15.9}	18.700		10.750	832.20		8,946.15
		2-2.5	2.8	2.800					
T029	SL0094	0-0.5	0.46	0.460	0.460		255.60	117.58	
		1-1.5	0.52	0.520		1.385	255.60		354.01
		2-2.5	2.25 J	2.250					
	SL0095	0-0.5	0.41	0.410	0.410		856.30	351.08	
		1-1.5	0.541 J	0.541		6.271	856.30		5,369.43
		2-2.5	6.7 {17.3}	12.000					
	SL0096	0-0.5	4.2	4.200	4.200		711.70	2,989.14	
		1-1.5	2.17 J	2.170		2.865	711.70		2,039.02
		2-2.5	3.56	3.560					
	BE-0042	0-0.5	0.2	0.200	0.200		566.60	113.32	
		1-1.5	0.3	0.300		0.750	566.60		424.95
		2-2.5	1.2	1.200					
	BE-0043	0-0.5	2.5	2.500	2.500		403.60	1,009.00	
		1-1.5	49	49.000		32.500	403.60		13,117.00
		2-2.5	16	16.000					
T030	SL0461	0-0.5	ND(0.67) J [1.2 J] {1.08}	0.872	0.872		205.80	179.39	
		1-1.5	ND(0.76)	0.380		0.383	389.60		149.02
		2-2.5	ND(0.77)	0.385					
	SL0462	0-0.5	5.2	5.200	5.200		160.30	833.56	
		1-1.5	18.4	18.400		18.250	181.50		3,312.38
		2-2.5	18.1	18.100					
	SL0463	0-0.5	3.1	3.100	3.100		121.80	377.58	
		1-1.5	4.7	4.700		2.493	121.80		303.59
		2-2.5	ND(0.57)	0.285					
	BE-0044	0-0.5	4.9	4.900	4.900		64.60	316.54	
		1-1.5	16	16.000		28.000	519.90		14,557.20
		2-2.5	40	40.000					
	RB-2-3	0-1	4.3	7.300	7.300		10.40	75.92	
	RB-2-6	0-1	4.9	4.900	4.900		279.80	1,371.02	
	RB-2-9	0-1	12.6	12.600	12.600		534.80	6,738.48	
T031	SL0088	0-0.5	41	41.000	41.000		415.60	17,039.60	
		1-1.5	17.6	17.600		11.950	542.50		6,482.88
		2-2.5	6.3	6.300					
	SL0089	0-0.5	15800	15800.000	15,800.000		455.20	7,192,160.00	
		1-1.5	1400	1400.000		929.750	493.10		458,459.73
		2-2.5	390 {529}	459.500					
	SL0090	0-0.5	250	250.000	250.000		223.00	55,750.00	
		1-1.5	520 J	520.000		530.000	223.00		118,190.00
		2-2.5	540	540.000					

TABLE D-6

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (PRE-REMOVAL) - AREA 6

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T032	SL0464	0-0.5	6.2	6.200	6.200		977.70	6,061.74	
		1-1.5	26.3	26.300		263.150	977.70		257,281.76
		2-2.5	500	500.000					
	SL0465	0-0.5	13	13.000	13.000		793.70	10,318.10	
		1-1.5	0.96	0.960		0.971	793.70		770.88
		2-2.5	ND(0.55) {1.69}	0.983					
	SL0466	0-0.5	15.1	15.100	15.100		317.70	4,797.27	
T033	SL0100	0-0.5	187	187.000	187.000		791.10	147,935.70	
		1-1.5	32	32.000		27.700	791.10		21,913.47
		2-2.5	23.4	23.400					
	SL0101	0-0.5	62	62.000	62.000		957.70	59,377.40	
		1-1.5	0.5 J	0.500		0.750	962.50		721.88
		2-2.5	1	1.000					
	SL0102	0-0.5	13.6 [9.3]	11.450	11.450		418.10	4,787.25	
		1-1.5	2.08 J {4.08}	3.080		3.490	437.80		1,527.92
		2-2.5	3.9	3.900					
T034	SL0467	0-0.5	2.03	2.030	2.030		548.60	1,113.66	
		1-1.5	6.1 [6.42]	6.260		32.480	670.70		21,784.34
		2-2.5	58.7	58.700					
	SL0468	0-0.5	45.41 {173}	109.205	109.205		176.30	19,252.84	
		1-1.5	65.34	65.340		46.070	252.30		11,623.46
		2-2.5	26.8	26.800					
	SL0469	0-0.5	71.1	71.100	71.100		579.10	41,174.01	
		1-1.5	ND(0.534)	0.267		0.265	670.70		177.40
		2-2.5	ND(0.542)	0.262					
T035	SL0097	0-0.5	4.6	4.600	4.600		186.50	857.90	
		1-1.5	4.79	4.790		14.845	371.90		5,520.86
		2-2.5	24.9	24.900					
	SL0098	0-0.5	7.2 [8.5]	7.850	7.850		446.60	3,505.81	
		1-1.5	7.4	7.400		8.000	502.20		4,017.60
		2-2.5	8.6	8.600					
	SL0099	0-0.5	36 {54.4}	45.200	45.200		380.50	17,198.60	
		1-1.5	540	540.000		505.000	538.50		271,942.50
		2-2.5	470	470.000					
	RB-1-3	0-1	130	130.000	130.000		126.30	16,419.00	
	RB-1-6	0-1	160	160.000	160.000		217.10	34,736.00	
	RB-1-9	0-1	110	110.000	110.000		398.90	43,879.00	
T036	SL0470	0-0.5	0.927	0.927	0.927		276.80	256.59	
		1-1.5	1.55	1.550		1.445	276.80		399.98
		2-2.5	1.34	1.340					
	SL0471	0-0.5	11.95 {10.8}	11.375	11.375		458.10	5,210.89	
		1-1.5	42	42.000		36.000	458.10		16,491.60
		2-2.5	30	30.000					
	SL0472	0-0.5	56.5	56.500	56.500		438.20	24,758.30	
		1-1.5	8.1	8.100		9.145	438.20		4,007.34
		2-2.5	10.19	10.190					
	NS-37	0-2	24	24.000	24.000		131.90	3,165.60	
		2-4	16	16.000		20.000	131.90		2,638.00
T037	SL0103	0-0.5	174	174.000	174.000		460.90	80,196.60	
		1-1.5	198	198.000		112.700	460.90		51,943.43
		2-2.5	27.4	27.400					
	SL0104	0-0.5	4.8	4.800	4.800		525.00	2,520.00	
		1-1.5	5.2	5.200		6.100	525.00		3,202.50
		2-2.5	7	7.000					
	SL0105	0-0.5	260 {67.7}	163.850	163.850		174.30	28,559.06	
		1-1.5	570	570.000		485.000	174.30		84,535.50
		2-2.5	400	400.000					
T038	SL0473	0-0.5	2.08	2.080	2.080		812.30	1,689.58	
		1-1.5	19.23	19.230		23.630	812.30		19,194.65
		2-2.5	28.03	28.030					
	SL0474	0-0.5	9.28	9.280	9.280		364.60	3,383.49	
		1-1.5	98.2	98.200		90.138	364.60		32,864.13
		2-2.5	58.2 [65.3] {109 [95.8]}	82.075					
	SL0475	0-0.5	11.2	11.200	11.200		287.40	3,218.88	
		1-1.5	121	121.000		117.950	287.40		33,898.83
		2-2.5	114.9	114.900					

TABLE D-6

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (PRE-REMOVAL) - AREA 6

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T039	SL0106	0-0.5	12.9 J	12.900	12.900		85.30	1,100.37	
		1-1.5	19	19.000		39.000	303.30		11,828.70
		2-2.5	59	59.000					
	SL0107	0-0.5	9.7	9.700	9.700		528.20	5,123.54	
		1-1.5	75	75.000		67.500	742.90		50,145.75
		2-2.5	60	60.000					
	SL0108	0-0.5	7.5	7.500	7.500		364.50	2,733.75	
		1-1.5	29 {41.2}	35.100		95.550	519.40		49,628.67
		2-2.5	156 J	156.000					
	RB-8-6	0-0.5	7.09	7.090	7.340		406.90	2,986.65	
		0.5-1	7.56	7.590					
	RB-8-9	0-0.5	8.13	8.130	9.620		288.50	2,773.93	
		0.5-1	11.10	11.100					
T040	SL0476	0-0.5	2.54	2.540	2.540		354.30	899.92	
		1-1.5	5.2 J	0.565		1.288	335.80		432.34
		2-2.5	2.01	2.010					
	SL0477	0-0.5	0.922	0.922	0.922		481.50	443.94	
		1-1.5	9.1 {12.2}	10.650		102.925	534.00		54,961.95
		2-2.5	195.2	195.200					
	SL0478	0-0.5	3.71	3.710	3.710		369.00	1,368.99	
		1-1.5	24.03	24.030		154.515	406.10		62,748.54
		2-2.5	285	285.000					
T041	SL0116	0-0.5	5.3 J	5.300	5.300		392.40	2,079.72	
		1-1.5	14.5	14.500		15.750	392.40		6,180.30
		2-2.5	17	17.000					
	SL0117	0-0.5	22.6 [20.8]	21.700	21.700		550.90	11,954.53	
		1-1.5	32.1	32.100		26.750	550.90		14,736.58
		2-2.5	21.4	21.400					
	SL0118	0-0.5	45	45.000	45.000		439.20	19,764.00	
		1-1.5	160	160.000		93.900	439.20		41,240.88
		2-2.5	19.2 {36.4}	27.800					
T042	SL0479	0-0.5	2.21	2.210	2.210		559.20	1,235.83	
		1-1.5	14.8	14.800		10.245	559.20		5,729.00
		2-2.5	5.69	5.690					
	SL0480	0-0.5	58.1 {45.9}	52.000	52.000		311.10	16,177.20	
		1-1.5	408.6	408.600		439.800	357.10		157,052.58
		2-2.5	471	471.000					
	SL0481	0-0.5	366.4 [392.7]	379.550	379.550		473.30	179,641.02	
		1-1.5	515.8	515.800		295.150	590.40		174,256.56
		2-2.5	74.5	74.500					
	RB-9	0-0.5	4.17	4.170	4.170				
T043	SL0109	0-0.5	20 [24.6]	22.300	22.300		382.00	8,518.60	
		1-1.5	8.6	8.600		4.660	382.00		1,780.12
		2-2.5	0.72	0.720					
	SL0110	0-0.5	7.1	7.100	7.100		388.40	2,757.64	
		1-1.5	169	169.000		160.500	185.40		29,756.70
		2-2.5	152	152.000					
	SL0111	0-0.5	ND (18)	5.600	5.600		656.60	5,909.40	
		1-1.5	16.9 J	16.900		46.200	839.40		38,780.28
		2-2.5	55 {96}	75.500					
T044	SL0482	0-0.5	5.29	5.290	5.290		453.80	2,400.60	
		1-1.5	21.3	21.300		19.150	453.80		8,690.27
		2-2.5	17	17.000					
	SL0483	0-0.5	9.98	9.980	9.980		461.30	4,603.77	
		1-1.5	22.3	22.300		38.500	461.30		17,760.05
		2-2.5	54.7	54.700					
	SL0484	0-0.5	ND(0.527) {0.788}	0.526	0.526		300.90	158.20	
		1-1.5	3.41	3.410		3.125	300.90		940.31
		2-2.5	2.84	2.840					

TABLE D-6

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (PRE-REMOVAL) - AREA 6

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T045	SL0119	0-0.5	12.4 {8.72}	10.560	10.560		371.70	3,925.15	
		1-1.5	4.5	4.500		6.950	371.70		2,583.32
		2-2.5	9.4	9.400					
	SL0120	0-0.5	6.1	6.100	6.100		519.50	3,168.95	
		1-1.5	24.2	24.200		31.100	519.50		16,156.45
		2-2.5	38	38.000					
	SL0121	0-0.5	3.3 J	3.300	3.300		566.80	1,870.44	
		1-1.5	20.2 J	20.200		54.100	566.80		30,663.88
		2-2.5	88 J	88.000					
T046	SL0485	0-0.5	45	45.000	45.000		855.20	38,484.00	
		1-1.5	20.2	20.200		21.725	871.90		18,942.03
		2-2.5	21.7 [24.8]	23.250					
	SL0486	0-0.5	283	283.000	283.000		625.70	177,073.10	
		1-1.5	39	39.000		38.000	625.70		23,776.60
		2-2.5	37	37.000					
	SL0487	0-0.5	5.1	5.100	5.100		150.30	766.53	
		1-1.5	ND(0.52) {1.36}	0.810		0.810	150.30		121.74
	RB-6	0-2	53.00	53.000	53.000		392.30	20,791.90	
		2-4	4.70	4.700		4.700	392.30		1,843.81
	RB-10	0-0.5	7,760.00	7760.000	7,760.000		628.20	4,874,832.00	
T047	SL0112	0-0.5	9.1	9.100	9.100		465.60	4,236.96	
		1-1.5	9.1	9.100		4.587	531.20		2,436.35
		2-2.5	0.073	0.073					
	SL0113	0-0.5	24.8	24.800	24.800		571.60	14,175.68	
		1-1.5	40.4 J	40.400		27.900	784.20		21,879.18
		2-2.5	15.4	15.400					
	SL0114	0-0.5	24.6 J	24.600	24.600		465.80	11,458.68	
		1-1.5	6.9	6.900		5.368	587.10		3,151.26
		2-2.5	2.49 J {5.18}	3.835					
	BE-0039	0-0.5	141	141.000	141.000		207.80	29,299.80	
		1-1.5	76	76.000		132.500	539.90		71,536.75
		2-2.5	189	189.000					
	BE-0040	0-0.5	5,793	5793.000	5,793.000		592.00	3,429,456.00	
		1-1.5	2,477	2477.000		1,470.500	614.30		903,328.15
		2-2.5	464	464.000					
	BE-0041	0-0.5	1,001	1001.000	1,001.000		713.90	714,613.90	
		1-1.5	1,996	1996.000		1,870.000	871.50		1,629,705.00
		2-2.5	1,744	1744.000					
	RB-7	0-2	1,400	1400.000	1,400.000		246.30	344,820.00	
		2-4	177	177.000		177.000	334.00		59,118.00
	RB-12	0-0.5	50.1	50.100	50.100		435.50	21,818.55	
	RB-11	0-0.5	19.4	19.400	19.400		465.00	9,021.00	
T049	SL0122	0-0.5	8.9 J	8.900	8.900		51.20	455.68	
		1-1.5	53 J	53.000		1,176.500	52.30		61,530.95
		2-2.5	2300	2300.000					
	SL0123	0-0.5	48 [67]	57.500	57.500		159.30	9,159.75	
		1-1.5	72	72.000		194.000	868.00		168,392.00
		2-2.5	316 J	316.000					
	SL0124	0-0.5	35900 {6920}	21410.000	21,410.000		407.60	8,726,716.00	
						Sum		31,677,416.38	6,715,888.41
						Section Area (ft2)		49,931.20	
						Spatial Average 0-1 (ppm)		634.42	
						Spatial Average 1-3 (ppm)		134.50	

Note:
See Notes following Table D-14.

TABLE D-7

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (PRE-REMOVAL) - AREA 7

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T001	SL0058	0-0.5	1.2	1.200	1.200		997.20	1,196.64	
		1-1.5	0.68	0.680		3.488	997.20		3,477.74
		2-2.5	8.5 {4.09 J}	6.295					
	SL0059	0-0.5	2.3	2.300	2.300		1,404.60	3,230.58	
		1-1.5	7.4	7.400		5.950	1,404.60		8,357.37
		2-2.5	4.5	4.500					
	SL0060	0-0.5	2.5 [2.8]	2.650	2.650		754.20	1,998.63	
		1-1.5	22	22.000		14.900	754.20		11,237.58
		2-2.5	7.8	7.800					
T003	SL0049	0-0.5	0.29	0.290	0.290		1,428.70	414.32	
		1-1.5	0.8	0.800		1.750	1,428.70		2,500.23
		2-2.5	2.7	2.700					
	SL0050	0-0.5	12	12.000	12.000		1,566.40	18,796.80	
		1-1.5	2.7	2.700		2.150	1,566.40		3,367.76
		2-2.5	1.6	1.600					
	SL0051	0-0.5	0.87	0.870	0.870		956.60	832.24	
		1-1.5	8.6 {9.09}	8.845		4.538	956.60		4,340.57
		2-2.5	0.23	0.230					
T005	SL0061	0-0.5	1.06 J {1.47}	1.265	1.265		982.80	1,243.24	
		1-1.5	35.1	35.100		20.440	982.20		20,076.17
		2-2.5	5.78 J	5.780					
	SL0062	0-0.5	0.6	0.600	0.600		2,086.30	1,251.78	
		1-1.5	0.4	0.400		0.535	2,086.30		1,116.17
		2-2.5	0.67	0.670					
	SL0063	0-0.5	0.3	0.300	0.300		1,683.80	505.14	
		1-1.5	0.053	0.053		0.031	1,683.80		52.20
		2-2.5	ND(0.018)	0.009					
T007	SL0052	0-0.5	0.58 [0.58] {0.515 [0.495]}	0.543	0.543		1,213.40	658.27	
		1-1.5	0.6	0.600		0.475	1,213.40		576.37
		2-2.5	0.35	0.350					
	SL0053	0-0.5	0.293	0.293	0.293		2,431.30	712.37	
		1-1.5	0.36	0.360		0.595	2,431.30		1,446.62
		2-2.5	0.83 J	0.830					
	SL0054	0-0.5	0.459	0.459	0.459		1,491.30	684.51	
		1-1.5	0.123 J	0.123		0.103	1,491.30		152.86
		2-2.5	0.082	0.082					
T009	SL0064	0-0.5	0.232	0.232	0.232		1,038.70	240.98	
		1-1.5	0.95	0.950		1.150	1,038.70		1,194.51
		2-2.5	1.35 J	1.350					
	SL0065	0-0.5	0.37	0.370	0.370		636.50	235.51	
		1-1.5	ND(0.018)	0.009		0.009	636.50		5.73
		2-2.5	ND(0.018)	0.009					
	SL0066	0-0.5	0.12 [0.18]	0.150	0.150		722.00	108.30	
		1-1.5	0.13 J	0.130		0.076	722.00		54.51
		2-2.5	0.021 J	0.021					
	BE--0045	0-0.5	0.30	0.300	0.300		1,250.60	375.18	
		1-1.5	1.00	1.000		1.000	1,250.60		1,250.60
		2-2.5	1.00	1.000					
	BE-0046	0-0.5	1.10	1.100	1.100		1,135.00	1,248.50	
		1-1.5	0.10	0.100		0.100	1,135.00		113.50
		2-2.5	ND (0.2)	0.100					
	BE-0047	0-0.5	0.20	0.200	0.200		1,976.30	395.26	
		1-1.5	0.50	0.500		0.450	1,976.30		889.34
		2-2.5	0.40	0.400					
T011	SL0055	0-0.5	0.5	0.500	0.500		690.20	345.10	
		1-1.5	0.243 J {0.466}	0.355		1.377	690.20		950.58
		2-2.5	2.4	2.400					
	SL0056	0-0.5	0.93	0.930	0.930		1,913.80	1,779.83	
		1-1.5	3.9	3.900		2.129	1,913.80		4,073.52
		2-2.5	0.357 J	0.357					
	SL0057	0-0.5	0.4	0.400	0.400		2,127.70	851.08	
		1-1.5	0.153	0.153		0.143	2,127.70		303.20
		2-2.5	0.132	0.132					

TABLE D-7

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (PRE-REMOVAL) - AREA 7

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T013	SL0068	0-0.5	1.16	1.160	1.160		896.30	1,039.71	
		1-1.5	6.3	6.300		3.155	896.30		2,827.38
		2-2.5	ND(0.018)	0.009					
	SL0069	0-0.5	1.33	1.330	1.330		1,603.60	2,132.79	
		1-1.5	0.042	0.042		0.069	1,603.60		109.85
		2-2.5	0.095	0.095					
	SL0070	0-0.5	0.38 J {1.12}	0.750	0.750		1,807.10	1,355.33	
		1-1.5	0.092	0.092		0.099	1,807.10		178.90
		2-2.5	0.106	0.106					
T015	SL0078	0-0.5	0.67 [0.42] {0.472 [0.435]}	0.499	0.499		893.10	445.88	
		1-1.5	2.7	2.700		1.490	893.10		1,330.72
		2-2.5	0.28	0.280					
	SL0079	0-0.5	1.5	1.500	1.500		1,172.30	1,758.45	
		1-1.5	0.18 J	0.180		1.190	1,172.30		1,395.04
		2-2.5	2.2	2.200					
	SL0080	0-0.5	0.47	0.470	0.470		2,036.10	956.97	
		1-1.5	0.137 [0.147 J] {0.261 [0.215]}	0.190		0.144	2,036.10		292.18
		2-2.5	0.097	0.097					
T017	SL0071	0-0.5	0.4 J	0.400	0.400		776.50	310.60	
		1-1.5	0.253 J	0.253		0.542	776.50		420.47
		2-2.5	0.83 J	0.830					
	SL0072	0-0.5	3.91 J [3.23 J]	3.570	3.570		1,214.40	4,335.41	
		1-1.5	1.05 J	1.050		9.925	1,214.40		12,052.92
		2-2.5	18.8 J	18.800					
	SL0073	0-0.5	1.43 J	1.430	1.430		1,153.00	1,648.79	
		1-1.5	2.9 J {6.55}	4.725		2.523	1,153.00		2,908.44
		2-2.5	0.32 J	0.320					
T018	SL0443	0-0.5	ND(0.676)	0.338	0.338		392.60	132.70	
		1-1.5	ND(0.697)	0.349		0.377	392.60		147.96
		2-2.5	ND(0.809) [ND(0.812)]	0.405					
	SL0444	0-0.5	2.6	2.600	2.600		571.00	1,484.60	
		1-1.5	1.73 J [2.3]	2.015		1.943	571.00		1,109.17
		2-2.5	1.87	1.870					
	SL0445	0-0.5	10.6 {18.3}	14.450	14.450		1,221.40	17,649.23	
		1-1.5	0.771	0.771		0.528	1,221.40		644.29
		2-2.5	ND(0.568)	0.284					
T019	SL0081	0-0.5	0.69	0.690	0.690		501.10	345.76	
		1-1.5	1.53 J	1.530		2.790	501.10		1,398.07
		2-2.5	4.3 J {3.8}	4.050					
	SL0082	0-0.5	3.5 J	3.500	3.500		782.60	2,739.10	
		1-1.5	4.84 J	4.840		5.555	782.60		4,347.34
		2-2.5	6.27 J	6.270					
	SL0083	0-0.5	1 J	1.000	1.000		381.50	381.50	
		1-1.5	20.8 J	20.800		20.800	381.50		7,935.20
						Sum		73,821.07	102,635.03
						Section Area (ft2)		43,391.10	
						Spatial Average 0-1 (ppm)		1.70	
						Spatial Average 1-3 (ppm)		2.37	

Note:
See Notes following Table D-14.

TABLE D-8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (POST-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T001	SL0001	0-0.5	0.58 {0.833}	0.707	0.707		400.10	282.67	
		1-1.5	5.07	5.070		55.535	400.10		22,219.55
		2-2.5	106	106.000					
	SL0002	0-0.5	1.87	1.870	1.870		1,315.00	2,459.05	
		1-1.5	2.38	2.380		5.790	1,315.00		7,613.85
		2-2.5	9.2	9.200					
	SL0003	0-0.5	3.55	3.550	3.550		1,193.70	4,237.64	
		1-1.5	0.96	0.960		0.750	1,193.70		895.28
		2-2.5	0.54	0.540					
T002	SL0410	0-0.5	13.2	13.200	13.200		724.90	9,568.68	
		1-1.5	6.94	6.940		6.975	724.90		5,056.18
		2-2.5	3.52 {10.5}	7.010					
	SL0411	0-0.5	7.01	7.01	7.010		525.50	3,683.76	
		1-1.5	0.85	0.847		12.324	525.50		6,476.00
		2-2.5	23.80	23.800					
	SL0412	0-0.5	24.6	24.6	24.600		31.00	762.60	
		1-1.5	25.80	25.800		13.865	31.00		429.82
		2-2.5	1.93	1.930					
T003	SL0004	0-0.5	0.32	0.32	0.320		492.80	157.70	
		1-1.5	0.4	0.400		0.400	492.80		197.12
		2-2.5	0.4 J	0.400					
	SL0005	0-0.5	74	**0.0375**	0.038		817.40	30.65	
		1-1.5	11.4 {18.1}	14.750		10.075	817.40		8,235.31
		2-2.5	5.4 J	5.400					
	SL0006	0-0.5	9.4	9.4	9.400		375.10	3,525.94	
		1-1.5	0.94	0.940		0.950	375.10		356.35
		2-2.5	0.96 J	0.960					
T004	SL0407	0-0.5	ND(0.553)	0.277	0.277		534.80	147.87	
		1-1.5	ND(0.532)	0.226		0.256	534.80		137.04
		2-2.5	ND(0.573)	0.287					
	SL0408	0-0.5	70.3 {164}	**0.0375**	0.038		492.90	18.48	
		1-1.5	67.60	67.600		54.900	492.90		27,060.21
		2-2.5	42.20	42.200					
	SL0409	0-0.5	68.8	**0.0375**	0.038		669.30	25.10	
		1-1.5	47.3	47.300		41.650	669.30		27,876.35
		2-2.5	41 [31]	36.000					
T005	SL0007	0-0.5	23.8 [30.8]	**0.0375**	0.038		240.30	9.01	
		1-1.5	75 {79.5}	**0.0375**		0.038	240.30		9.01
	SL0008	0-0.5	73	73.000	73.000		642.90	46,931.70	
		1-1.5	46	46.000		41.800	642.90		26,873.22
		2-2.5	37.6	37.600					
	SL0009	0-0.5	4.34	**0.0375**	0.038		421.70	15.81	
		1-1.5	1.1	**0.0375**		0.038	421.70		15.81
	East St. Area 2-A			**0.0375**	0.038	0.038	196.70	7.38	7.38
	East St. Area 2-B			**0.0375**	0.038	0.038	488.70	18.33	18.33
	East St. Area 2-C			**0.0375**	0.038	0.038	583.90	21.90	21.90
	East St. Area 2-D			**0.0375**	0.038	0.038	668.80	25.08	25.08
T006	SL0404	0-0.5	ND(0.537)	0.269	0.269		429.4	115.29	
		1-1.5	0.996	0.996		1.548	429.4		664.71
		2-2.5	2.1	2.100					
	SL0405	0-0.5	21.3 {82.5}	51.900	51.900		489.6	25,410.24	
		1-1.5	6.76	6.760		5.005	489.6		2,450.45
		2-2.5	3.25	3.250					
	SL0406	0-0.5	4.65	4.650	4.650		168.1	781.67	
		1-1.5	ND(0.549)	0.275		0.278	168.1		46.69
		2-2.5	ND(0.562)	0.281					
T007	SL0028	0-0.5	0.58 {0.511}	0.546	0.546		152.70		
		1-1.5	1.94	1.940		1.940	152.70		
	SL0029	0-0.5	0.48	0.480	0.480		408.60	196.13	
		1-1.5	2.7	2.700		2.700	408.60		1,103.22
	SL0030	0-0.5	8.6 [6.98]	7.790	7.790		569.20	4,434.07	
		1-1.5	6.3	6.300		6.300	569.20		3,585.96
T008	SL0401	0-0.5	11.2	11.200	11.200		166.60		
		1-1.5	ND(0.608) {8.56}	4.432		2.697	166.60		
		2-2.5	0.961	0.961					
	SL0402	0-0.5	ND(0.519)	0.260	0.260		155.50	40.35	
		1-1.5	0.402 J	0.402		0.966	155.50		150.21
		2-2.5	1.53	1.530					

TABLE D-8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (POST-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T008	SL0403	0-0.5	25.2 [0.518 J]	12.859	12.859		524.30	6,741.97	
		1-1.5	6.72	6.720		3.831	526.90		2,018.29
		2-2.5	0.941	0.941					
T009	SL0041	0-0.5	1200	1200.000	1,200.000		315.10		
		1-1.5	167 {161}	164.000		112.000	315.10		
		2-2.5	60 J	60.000					
	SL0042	0-0.5	3.62	3.620	3.620		377.90	1,368.00	
		1-1.5	13.9	13.900		9.700	595.00		5,771.50
		2-2.5	5.5	5.500					
	SL0043	0-0.5	20	20.000	20.000		253.40	5,068.00	
	BW-0037	0-0.5	1.7 [1.7]	1.700	1.700		243.20	413.44	
		1-1.5	43	43.000		73.000	243.20		17,753.60
		2-2.5	103	103.000					
	BW-0037	0-0.5	1.7 [1.7]	**0.0375**	0.038		83.84	3.14	
		1-1.5	43	**0.0375**		0.038	83.84		3.14
		2-2.5	103	**0.0375**					
	BW-0038	0-0.5	7.30	7.000	7.000		224.90	1,574.30	
		1-1.5	12	12.000		12.000	248.10		2,977.20
T010	SL0398	0-0.5	481 {39.5}	**0.0375**	0.038		195.62	7.34	
		1-1.5	55.7	55.700		39.200	195.62		7,668.30
		2-2.5	22.7	22.700					
	SL0399	0-0.5	3.82	3.820	3.820		484.10	1,849.26	
		1-1.5	13.1 [13]	13.050		15.075	484.10		7,297.81
		2-2.5	17.1	17.100					
	SL0400	0-0.5	31.1	31.100	31.100		352.90	10,975.19	
		1-1.5	5.41	5.410		5.500	352.90		1,940.95
		2-2.5	5.59	5.590					
T011	SL0031	0-0.5	4.2	**0.0375**	0.038		68.30	2.56	
		1-1.5	95 {84.4}	**0.0375**		0.038	68.30		2.56
		2-2.5	480	**0.0375**					
	SL0032	0-0.5	1.7	**0.0375**	0.038		400.60	15.02	
		1-1.5	61	**0.0375**		0.038	400.60		15.02
		2-2.5	740	**0.0375**					
	SL0033	0-0.5	0.67	0.670	0.670		786.00	526.62	
		1-1.5	0.062	0.062		0.048	786.00		37.73
		2-2.5	0.034	0.034					
T012	SL0395	0-0.5	ND(0.719)	**0.0375**	0.038		168.90	6.33	
		1-1.5	468	**0.0375**		0.038	168.90		6.33
		2-2.5	121	**0.0375**					
	SL0396	0-0.5	409 J	**0.0375**	0.038		751.30	28.17	
		1-1.5	16 [17] {551}	**0.0375**		5.219	751.30		3,920.85
		2-2.5	10.40	10.400					
	SL0397	0-0.5	ND(0.513)	0.257	0.257		839.90	215.43	
		1-1.5	ND(0.531)	0.266		0.269	839.90		226.14
		2-2.5	ND(0.546)	0.273					
T013	SL0044	0-0.5	3	3.000	3.000		591.20	1,773.60	
		1-1.5	ND(0.018)	0.009		0.017	591.20		9.75
		2-2.5	0.024	0.024					
	SL0045	0-0.5	6.7	6.700	6.700		693.50	4,646.45	
		1-1.5	0.57 {1.38}	0.975		0.948	693.50		657.09
		2-2.5	0.92	0.920					
	SL0046	0-0.5	0.43 J [0.56]	0.495	0.495		772.80	382.54	
		1-1.5	0.058	0.058		0.095	772.80		73.42
		2-2.5	0.132 J	0.132					
T014	SL0392	0-0.5	ND(0.651) {1.81}	1.068	1.068		580.80	620.15	
		1-1.5	ND(0.713)	0.357		0.338	580.80		196.17
		2-2.5	ND(0.638)	0.319					
	SL0393	0-0.5	20.51	20.510	20.510		820.50	16,828.46	
		1-1.5	8.49 [10.74]	9.615		4.951	820.50		4,061.89
		2-2.5	ND(0.572)	0.286					
	SL0394	0-0.5	0.388 J	0.388	0.388		825.00	320.10	
		1-1.5	ND(0.507)	0.254		0.257	825.00		211.82
		2-2.5	ND(0.52)	0.260					
T015	SL0034	0-0.5	0.59	0.590	0.590		553.60	326.62	
		1-1.5	0.9 J [3.38 J]	2.140		2.810	553.60		1,555.62
		2-2.5	3.48	3.480					
	SL0035	0-0.5	148	**0.0375**	0.038		830.00	31.13	
		1-1.5	29.4	29.400		23.450	830.00		19,463.50
		2-2.5	17.5	17.500					

TABLE D-8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (POST-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T015	SL0036	0-0.5	0.65	0.650	0.650		736.50	478.73	
		1-1.5	ND(0.017)	0.009		0.022	736.50		15.83
		2-2.5	ND(0.018) {ND(0.120)}	0.035					
T016	SL0379	0-0.5	ND(0.656)	0.328	0.328		656.00	215.17	
		1-1.5	ND(0.703)	0.352		1.993	656.00		1,307.57
		2-2.5	1.26 {6.01}	3.635					
	SL0380	0-0.5	2.56	2.560	2.560		867.00	2,219.52	
		1-1.5	ND(0.508)	0.254		0.255	867.00		220.65
		2-2.5	0.33 J	0.255					
	SL0381	0-0.5	1.35	1.350	1.350		455.70	615.20	
		1-1.5	ND(0.516)	0.258		1.359	455.70		619.30
		2-2.5	2.46	2.460					
T017	SL0010	0-0.5	10.8	10.800	10.800		738.10	7,971.48	
		1-1.5	70 {83.9}	76.950		65.475	738.10		48,327.10
		2-2.5	54	54.000					
	SL0011	0-0.5	0.92	0.920	0.920		812.60	747.59	
		1-1.5	0.021	0.021		0.028	812.60		22.35
		2-2.5	0.034	0.034					
	SL0047	0-0.5	1.29	1.290	1.290		310.90	401.06	
		1-1.5	0.285 J	0.285		0.148	310.90		45.94
		2-2.5	ND(0.021)	0.011					
T018	SL0376	0-0.5	1.1 J	0.340	0.340		553.60	187.95	
		1-1.5	ND(0.728) {1.48}	0.922		0.638	553.60		353.20
		2-2.5	ND(0.713) [ND(0.704)]	0.354					
	SL0377	0-0.5	10.9 J	10.900	10.900		712.50	7,766.25	
		1-1.5	ND(0.524)	0.262		0.262	712.50		186.68
		2-2.5	ND(0.524)	0.262					
	SL0378	0-0.5	0.889 J	0.889	0.889		281.90	250.61	
		1-1.5	ND(0.514)	0.257		0.258	281.90		72.73
		2-2.5	ND(0.518)	0.259					
T019	SL0020	0-0.5	0.728	0.728	0.728		475.30	346.02	
		1-1.5	0.676	0.676		1.858	475.30		883.11
		2-2.5	3.04 J	3.040					
	SL0021	0-0.5	96 {84.2}	90.100	90.100		590.40	53,195.04	
		1-1.5	2.64	2.640		2.210	590.40		1,304.78
		2-2.5	1.78	1.780					
	SL0022	0-0.5	5.5	5.500	5.500		257.50	1,416.25	
		1-1.5	0.35	0.350		0.258	257.60		66.46
		2-2.5	0.166	0.166					
T020	SL0343	0-0.5	ND(0.682)	0.341	0.341		312.10	106.43	
		1-1.5	ND(0.754)	0.377		1.02	312.10		317.87
		2-2.5	2.85 J [0.47 J]	1.66					
	SL0344	0-0.5	2.31	2.310	2.310		428.40	989.60	
		1-1.5	12.7	12.700		8.800	428.40		3,769.92
		2-2.5	4.9	4.900					
	SL0345	0-0.5	7.43	7.430	7.430		590.60	4,388.16	
		1-1.5	ND(0.603) {0.401}	0.351		0.322	590.60		190.39
		2-2.5	ND(0.587)	0.294					
T021	SL0012	0-0.5	0.334 J	0.334	0.334		294.40	98.33	
		1-1.5	0.75 J	0.750		0.408	294.40		120.12
		2-2.5	0.066 J	0.066					
	SL0013	0-0.5	3.2	3.200	3.200		398.70	1,275.84	
		1-1.5	7.03	7.030		6.745	398.70		2,689.23
		2-2.5	6.46	6.460					
	SL0014	0-0.5	3.45 [2.42] {5.55 [5.38]}	4.200	4.200		582.90	2,448.18	
		1-1.5	4.5	4.500		2.920	582.90		1,702.07
		2-2.5	1.34	1.340					
T022	SL0340	0-0.5	6.4	**0.0375**	0.038		384.20	14.41	
		1-1.5	299	**0.0375**		13.119	384.20		5,040.22
		2-2.5	26.2	26.200					
	SL0341	0-0.5	3.02	3.020	3.020		484.90	1,464.40	
		1-1.5	10.5	10.500		44.950	484.90		21,796.26
		2-2.5	79.4	79.400					
	SL0342	0-0.5	70.1 {84.1}	77.100	77.100		450.30	34,718.13	
		1-1.5	15.6	15.600		12.900	450.30		5,808.87
		2-2.5	10.2	10.200					

TABLE D-8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (POST-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T023	SL0015	0-0.5	1.19	**0.0375**	0.038		276.40	10.37	
		1-1.5	159	**0.0375**		0.038	276.40		10.37
		2-2.5	283 {191}	**0.0375**					
	SL0016	0-0.5	5.5	5.500	5.500		282.80	1,555.40	
		1-1.5	40	40.000		32.050	282.80		9,063.74
		2-2.5	24.1	24.100					
	SL0017	0-0.5	13	13.000	13.000		502.10	6,527.30	
		1-1.5	58.5	58.500		65.750	502.10		33,013.08
		2-2.5	73	73.000					
T024	SL0327	0-0.5	ND(0.767)	**0.0375**	0.038		286.20	10.73	
		1-1.5	0.975	**0.0375**		0.038	286.20		10.73
		2-2.5	534	**0.0375**					
	SL0338	0-0.5	12.4	12.400	12.400		398.20	4,937.68	
		1-1.5	46.6	46.600		38.500	398.20		15,330.70
		2-2.5	30.4	30.400					
	SL0339	0-0.5	8.44	8.440	8.440		163.10	1,376.56	
		1-1.5	ND(0.571)	0.286		3.928	163.10		640.62
		2-2.5	16.1 J [4.69 J] {1.92}	7.570					
T025	SL0023	0-0.5	1.8 [1.36]	**0.0375**	0.038		450.60	16.90	
		1-1.5	12.7	**0.0375**		0.038	450.60		16.90
		2-2.5	17000	**0.0375**					
	SL0024	0-0.5	19	19.000	19.000		389.30	7,396.70	
		1-1.5	32.4	32.400		25.100	389.30		9,771.43
		2-2.5	17.8	17.800					
	SL0025	0-0.5	2.59 {4.61}	3.600	3.600		264.90	953.64	
		1-1.5	0.297	0.297		20.199	264.90		5,350.58
		2-2.5	40.1	40.100					
T026	SL0324	0-0.5	0.377 J	0.377	0.377		495.40	186.77	
		1-1.5	ND(0.606)	0.303		0.336	495.40		166.21
		2-2.5	ND(0.736)	0.368					
	SL0325	0-0.5	51.9	51.900	51.900		277.70	14,412.63	
		1-1.5	87	87.000		73.100	277.70		20,299.87
		2-2.5	52.1 [66.3]	59.200					
	SL0326	0-0.5	4.39 {10.7}	7.545	7.545		604.70	4,562.46	
		1-1.5	5.55	5.550		7.925	604.70		4,792.25
		2-2.5	10.3	10.300					
T027	SL0026	0-0.5	1.75	1.750	1.750		705.50	1,234.63	
		1-1.5	43	43.000		37.825	705.50		26,685.54
		2-2.5	26.5 J {38.8}	32.650					
	SL0027	0-0.5	29.1	29.100	29.100		545.60	15,876.96	
		1-1.5	61.7	61.700		38.900	545.60		21,223.84
		2-2.5	16.1	16.100					
	SL0037	0-0.5	11.8	11.800	11.800		281.90	3,326.42	
		1-1.5	3.1	3.100		3.250	281.30		914.23
		2-2.5	3.4	3.400					
T028	SL0321	0-0.5	ND(0.767)	0.384	0.384		582.90	223.54	
		1-1.5	ND(0.717)	0.359		6.579	494.60		3,254.10
		2-2.5	12.8	12.800					
	SL0322	0-0.5	47.1	47.100	47.100		242.62	11,427.40	
		1-1.5	42.1	42.100		56.825	242.62		13,786.88
		2-2.5	61.5 {81.6}	71.550					
	SL0323	0-0.5	108	**0.0375**	0.038		471.54	17.68	
		1-1.5	110	**0.0375**		0.038	471.54		17.68
		2-2.5	160 J	**0.0375**					
T029	SL0018	0-0.5	3.61	3.610	3.610		302.10	1,090.58	
		1-1.5	0.89	0.890		1.005	302.10		303.61
		2-2.5	1.12 J	1.120					
	SL0019	0-0.5	91 J [95]	**0.0375**	0.038		423.40	15.88	
		1-1.5	90 J	**0.0375**		0.038	423.40		15.88
		2-2.5	214 {295}	**0.0375**					
	SL0040	0-0.5	160	**0.0375**	0.038		330.80	12.41	
		1-1.5	108	**0.0375**		59.519	330.80		19,688.80
		2-2.5	119	119.000					

TABLE D-8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (POST-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T030	SL0318	0-0.5	4.57	**0.0375**	0.038		378.60	14.20	
		1-1.5	37.2 [38.4]	**0.0375**		0.038	378.60		14.20
		2-2.5	52.9	**0.0375**					
	SL0319	0-0.5	58.6	**0.0375**	0.038		209.80	7.87	
		1-1.5	207 {327}	**0.0375**		16.219	209.80		3,402.69
		2-2.5	32.4	32.400					
	SL0320	0-0.5	99.3	**0.0375**	0.038		343.90	12.90	
		1-1.5	178	**0.0375**		0.038	343.90		12.90
		2-2.5	1850 J [2034 J]	**0.0375**					
	BW-0033	0-0.5	4.5	4.500	4.500		205.40	924.30	
		1-1.5	32	32.000		29.500	205.40		6,059.30
		2-2.5	27	27.000					
	BW-0034	0-0.5	58	58.000	58.000		112.70	6,536.60	
		1-1.5	45	45.000		33.000	112.70		3,719.10
		2-2.5	21	21.000					
	BW-0034	0-0.5	58	**0.0375**	0.038		172.60	6.47	
		1-1.5	45	**0.0375**		0.038	172.60		6.47
		2-2.5	21	**0.0375**					
	BW-0035	0-0.5	113	**0.0375**	0.038		132.70	4.98	
		1-1.5	382	**0.0375**		0.038	132.70		4.98
		2-2.5	395	**0.0375**					
T031	SL0038	0-0.5	36	**0.0375**	0.038		359.20	13.47	
		1-1.5	1480	**0.0375**		37.019	359.20		13,297.14
		2-2.5	74	74.000					
	SL0039	0-0.5	23.4 [23.5]	23.450	23.450		346.70	8,130.12	
		1-1.5	77	77.000		57.850	346.70		20,056.60
		2-2.5	40 {37.4}	38.700					
	SL0048	0-0.5	792 J	**0.0375**	0.038		201.00	7.54	
		1-1.5	76 J	76.000		65.500	201.00		13,165.50
		2-2.5	55 J	55.000					
T032	SL0315	0-0.5	1188	**0.0375**	0.038		478.20	17.93	
		1-1.5	166	**0.0375**		6.019	478.20		2,878.17
		2-2.5	12	12.000					
	SL0316	0-0.5	31.4 {60.3}	**0.0375**	0.038		274.30	10.29	
		1-1.5	21	**0.0375**		64.019	274.30		17,560.34
		2-2.5	128	128.000					
	SL0316	0-0.5	31.4 {60.3}	45.8500	45.850		515.40	23,631.09	
		1-1.5	21	21.0000		74.500	515.40		38,397.30
		2-2.5	128	128.0000					
	SL0317	0-0.5	363	**0.0375**	0.038		202.70	7.60	
		1-1.5	34.6	34.600		46.650	202.70		9,455.96
		2-2.5	58.7	58.700					
	BW-0036	0-0.5	11.3	**0.0375**	0.038		722.10	27.08	
		1-1.5	10.5	**0.0375**		0.038	722.10		27.08
		2-2.5	248	**0.0375**					
T033	SL0145	0-0.5	3.68	3.680	3.680		377.30	1,388.46	
		1-1.5	8.1	8.100		14.700	377.30		5,546.31
		2-2.5	21.3	21.300					
	SL0146	0-0.5	25	25.000	25.000		677.10	16,927.50	
		1-1.5	17.4 {33.9}	25.650		38.825	677.10		26,288.41
		2-2.5	52	52.000					
	SL0147	0-0.5	109 J	**0.0375**	0.038		505.90	18.97	
		1-1.5	24	24.000		29.500	505.90		14,924.05
		2-2.5	35	35.000					
	95-27	0-2	39	39.000	39.000		125.40	4,890.60	
		2-4	50	50.000		44.500	125.40		5,580.30
	36CEB10	0-0.5	146	**0.0375**	0.038		751.30	28.17	
		0.5-2	70.7	**0.0375**		0.038	751.30		28.17
		2-4	134.0	**0.0375**					
T034	SL0188	0-0.5	2.7 {4.17}	**0.0375**	0.038		211.20	7.92	
		1-1.5	108	**0.0375**		0.038	211.20		7.92
		2-2.5	307 J	**0.0375**					
	SL0189	0-0.5	162	**0.0375**	0.038		218.10	8.18	
		1-1.5	440	**0.0375**		0.038	218.10		8.18
		2-2.5	260 J	**0.0375**					
	SL0190	0-0.5	13000 J	**0.0375**	0.038		80.30	3.01	
		1-1.5	1220 J	**0.0375**		0.038	80.30		3.01
		2-2.5	500 J	**0.0375**					

TABLE D-8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (POST-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T034	SL0190	0-0.5	13000 J	**0.0375**	0.038		250.00		
		1-1.5	1220 J	**0.0375**		0.038	250.00		
		2-2.5	500 J	**0.0375**					
	36CEB9	0-0.5	8.60	**0.0375**	0.038		254.60	9.55	
		0.5-2	42.8	**0.0375**		0.038	254.60		9.55
		2-4	191	**0.0375**					
	36CEB9	0-0.5	8.60	**0.0375**	0.038		61.50		
		0.5-2	42.8	**0.0375**		0.038	61.50		
		2-4	191	**0.0375**					
	36CEB8	0-0.5	9.25	**0.0375**	0.038		299.60	11.24	
		0.5-2	49.5	**0.0375**		0.038	299.60		11.24
		2-4	84.4	**0.0375**					
T035	SL0154	0-0.5	22.1	**0.0375**	0.038		132.00	4.95	
		1-1.5	24.1 J	**0.0375**		0.038	132.00		4.95
		2-2.5	51.2 J {23.6}	**0.0375**					
	T35-TB	0-0.5	119	**0.0375**	0.038		See 3-6C-EB-7,		
		1-1.5	71.6	**0.0375**		0.038	3-6C-EB-8,		
		2-2.5	55.2	**0.0375**			and SL0154		
	T35-MB	0-0.5	84.2[85.6]	**0.0375**	0.038		See 3-6C-EB-7,		
		1-1.5	62.5	**0.0375**		0.038	3-6C-EB-8,		
		2-2.5	335	**0.0375**			and SL0154		
	36CEB7	0-2	96.5	**0.0375**	0.038		351.70	13.19	
		2-4	136	**0.0375**		0.038	329.40		12.35
	Strip Removed	0-0.5	0.0375	**0.0375**	0.038		508.31	19.06	
	East of Bldg. 68	1-3	0.0375	**0.0375**		0.038	508.31		19.06
	Bldg. 68	0-0.5	0.0375	**0.0375**	0.038		4,082.70	153.10	
		1-3	0.0375	**0.0375**		0.038	4,112.90		154.23
	Strip Removed	0-0.5	0.0375	**0.0375**	0.038		2,462.10	92.33	
	West of Bldg. 68	1-3	0.0375	**0.0375**		0.038	2,462.10		92.33
	36CEB12	0-0.5	45.2	**0.0375**	0.038		233.40	8.75	
		0.5-2	81.6	**0.0375**		0.038	224.50		8.42
		2-4	168	**0.0375**					
T039	SL0155	0-0.5	39.2 J [19.5 J]	**0.0375**	0.038		17.70	0.66	
		1-1.5	60	**0.0375**		0.038	18.85		0.71
		2-2.5	277	**0.0375**					
	SL0157	0-0.5	59	**0.0375**	0.038		290.80	10.91	
		1-1.5	490 {539}	**0.0375**		0.038	323.70		12.14
		2-2.5	360	**0.0375**					
	SL0158	0-0.5	176	**0.0375**	0.038		105.80	3.97	
		1-1.5	53	**0.0375**		0.038	105.80		3.97
		2-2.5	110	**0.0375**					
	3-6C-EB-27	0-0.5	255	**0.0375**	0.038		288.70	10.83	
		0.5-1	271	**0.0375**					
		1-2	400	**0.0375**		0.038	288.70		10.83
		2-4	217	**0.0375**					
	3-6C-S-27	0-0.5	5.79	**0.0375**	0.038		54.00	2.03	
	3-6C-EB-22	0-0.5	464	**0.0375**	0.038		248.50	9.32	
		0.5-1	622	**0.0375**					
		1-2	416	**0.0375**		0.038	252.10		9.45
		2-4	87.30	**0.0375**					
	3-6C-S-22	0-0.5	10.50	**0.0375**	0.038		67.90	2.55	
	3-6C-EB-23	0-0.5	405	**0.0375**	0.038		210.00	7.88	
		0.5-1	316	**0.0375**					
		1-2	40.2	**0.0375**		0.038	210.00		7.88
		2-4	23.0	**0.0375**					
	3-6C-S-23	0-0.5	28.3	**0.0375**	0.038		136.70	5.13	
	3-6C-EB-24	0-0.5	71.7	71.700	49.350		288.60	14,242.41	
		0.5-1	27	27.000					
		1-2	9.53	10.000		15.100	325.90		4,921.09
		2-4	20.20	20.200					
	3-6C-S-24	0-0.5	3.80	**0.0375**	0.038		142.00	5.33	
	3-6C-EB-25	0-0.5	308	**0.0375**	0.038		287.40	10.78	
		0.5-1	59.3	**0.0375**					
		1-2	29.4	29.400		30.150	298.50		8,999.78
		2-4	30.9	30.900					
	3-6C-S-25	0-0.5	3.79[7.61]	5.700	5.650		38.50	217.53	

TABLE D-8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (POST-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T040	3-C6-EB-26	0-2	60.5	60.500	60.500		347.00	20,993.50	
		2-4	1.72	1.720		1.720	596.80		1,026.50
	3-6C-S-26	0-0.5	4.4	4.400	4.400		362.50	1,595.00	
	SL0312	0-0.5	9.81 [9.2]	**0.0375**	0.038		102.00	3.83	
		1-1.5	22.6	**0.0375**		0.038	135.40		5.08
		2-2.5	102	**0.0375**					
	SL0313	0-0.5	486	**0.0375**	0.038		364.30	13.66	
		1-1.5	53.6	**0.0375**		0.038	366.50		13.74
		2-2.5	13.8	**0.0375**					
	SL0314	0-0.5	183 {632}	**0.0375**	0.038		216.00	8.10	
		1-1.5	145	**0.0375**		0.038	216.00		8.10
		2-2.5	65	**0.0375**					
T041	SL0148	0-0.5	14 {12.4}	13.200	13.200		23.50	310.20	
		1-1.5	28	28.000		29.500	30.50		899.75
		2-2.5	31	31.000					
	SL0149	0-0.5	31.2	31.200	31.200		327.30	10,211.76	
		1-1.5	51	51.000		37.000	364.40		13,482.80
		2-2.5	23 J	23.000					
	SL0150	0-0.5	240 [220 J]	**0.0375**	0.038		214.90	8.06	
		1-1.5	1240	**0.0375**		0.038	214.90		8.06
		2-2.5	100	**0.0375**					
T042	SL0289	0-0.5	5.48 [4.16]	**0.0375**	0.038		126.50	4.74	
		1-1.5	24 {98.9}	**0.0375**		0.038	185.00		6.94
		2-2.5	280 J	**0.0375**					
	SL0290	0-0.5	274	**0.0375**	0.038		442.60	16.60	
		1-1.5	162	**0.0375**		0.038	452.70		16.98
		2-2.5	118	**0.0375**					
	SL0311	0-0.5	55.6	**0.0375**	0.038		89.50	3.36	
		1-1.5	18.5	**0.0375**		0.038	89.50		3.36
		2-2.5	9.16	**0.0375**					
T043	SL0159	0-0.5	4.78	4.780	4.780		82.20	392.92	
		1-1.5	6.2	6.200		5.550	151.50		840.83
		2-2.5	4.9 J	4.900					
	SL0160	0-0.5	28.5 {20.5}	24.500	24.500		284.10	6,960.45	
		1-1.5	82	82.000		75.500	306.80		23,163.40
		2-2.5	69	69.000					
	SL0161	0-0.5	53	53.000	53.000		102.60	5,437.80	
		1-1.5	62	62.000		38.000	102.60		3,898.80
		2-2.5	14 J	14.000					
	36CEB29	0-0.5	59.4	59.400	39.480		390.30	15,409.04	
		0.5-1	19.56	19.560					
		1-2	109.8	109.800		61.400	390.90		24,001.26
		2-4	13	13.000					
T044	SL0286	0-0.5	20 {7.36}	13.680	13.680		83.20	1,138.18	
		1-1.5	6.74	6.740		5.160	110.10		568.12
		2-2.5	3.58	3.580					
	SL0287	0-0.5	23	23.000	23.000		164.10	3,774.30	
		1-1.5	24.4	24.400		20.900	164.10		3,429.69
		2-2.5	17.4	17.400					
	SL0288	0-0.5	142	**0.0375**	0.038		145.20	5.45	
		1-1.5	48	48.000		109.000	145.20		15,826.80
		2-2.5	170	170.000					
	36CEB28	0-0.5	85	85.000	59.000		290.20	17,121.80	
		0.5-1	33.3	33.000					
		1-2	62.5	63.000		31.515	292.10		9,205.49
		2-4	ND(0.0595)	0.030					
T045	SL0164	0-0.5	18.8	18.800	18.800		108.10	2,032.28	
		1-1.5	12.4 {15.8}	14.100		57.050	230.40		13,144.32
		2-2.5	100	100.000					
	SL0165	0-0.5	36	36.000	36.000		171.30	6,166.80	
		1-1.5	189	189.000		101.350	180.50		18,293.68
		2-2.5	13.7	13.700					
	SL0166	0-0.5	85	**0.0375**	0.038		91.10	3.42	
		1-1.5	41	41.000		36.500	91.10		3,325.15
		2-2.5	32	32.000					
T046	SL0283	0-0.5	59	**0.0375**	0.038		333.10	12.49	
		1-1.5	210	**0.0375**		0.038	373.00		13.99
		2-2.5	1.23	**0.0375**					

TABLE D-8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (POST-REMOVAL) - AREA 1

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T046	SL0284	0-0.5	73 [92]	**0.0375**	0.038		446.60	16.75	
		1-1.5	60 {36.9}	48.450		46.225	446.60		20,644.09
		2-2.5	44	44.000					
	SL0285	0-0.5	21.9	21.900	21.900		431.40	9,447.66	
		1-1.5	1.21	1.210		7.205	432.20		3,114.00
		2-2.5	13.2	13.200					
T047	SL0151	0-0.5	30.4	**0.0375**	0.038		498.80	18.71	
		1-1.5	58.2	**0.0375**		0.419	498.80		208.87
		2-2.5	0.8	0.800					
	SL0152	0-0.5	40	40.000	40.000		285.20	11,408.00	
		1-1.5	0.88	0.880		2.310	285.20		658.81
		2-2.5	3.74	3.740					
	SL0153	0-0.5	28.4	**0.0375**	0.038		255.60	9.59	
		1-1.5	156 {57.1}	**0.0375**		29.519	255.60		7,544.99
		2-2.5	59	59.000					
	BW-0030	0-6"	27	27.000	27.000		189.70	5,121.90	
		12-18"	27	27.000		20.500	189.70		3,888.85
		24-30"	14	14.000					
	BW-0031	0-6"	2.7	2.700	2.700		370.00	999.00	
		12-18"	0.8	0.800		1.900	370.00		703.00
		24-30"	3	3.000					
	BW-0032	0-6"	2.2	2.200	2.200		256.80	564.96	
		12-18"	0.8	0.800		1.000	256.80		256.80
		24-30"	1.2	1.200					
T048	SL0268	0-0.5	16.5	16.500	16.500		447.60	7,385.40	
		1-1.5	47	47.000		35.300	447.60		15,800.28
		2-2.5	23.6	23.600					
	SL0269	0-0.5	40	40.000	40.000		155.40	6,216.00	
		1-1.5	60	60.000		41.950	155.40		6,519.03
		2-2.5	23.9	23.900					
	SL0270	0-0.5	9.2	9.200	9.200		139.70	1,285.24	
		1-1.5	17.2 {13.1}	15.150		9.825	139.70		1,372.55
		2-2.5	4.5	4.500					
T049	SL0156	0-0.5	60	60.000	60.000		462.90	27,774.00	
		1-1.5	3.43	3.430		4.415	462.90		2,043.70
		2-2.5	5.4 J	5.400					
	SL0162	0-0.5	3.44	3.440	3.440		387.20	1,331.97	
		1-1.5	30.2	30.200		17.250	387.20		6,679.20
		2-2.5	4.3 J	4.300					
	SL0163	0-0.5	74 [68]	71.000	71.000		831.00	59,001.00	
		1-1.5	11.5	11.500		14.250	831.00		11,841.75
		2-2.5	13.2 {20.8}	17.000					
T050	SL0265	0-0.5	2.84	2.840	2.840		848.20	2,408.89	
		1-1.5	7.4 J	7.400		3.836	848.20		3,253.27
		2-2.5	0.271J	0.271					
	SL0266	0-0.5	81 [86]	83.5000	83.500		904.80	75,550.80	
		1-1.5	2.2	2.200		5.000	904.80		4,524.00
		2-2.5	7.8	7.800					
	SL0267	0-0.5	2.7	2.700	2.700		388.40	1,048.68	
		1-1.5	0.316 {0.59}	0.453		0.302	388.40		117.10
		2-2.5	0.15	0.150					
T051	SL0175	0-0.5	3.26	**0.0375**	0.038		187.80	7.04	
		1-1.5	9.9	**0.0375**		0.038	187.80		7.04
		2-2.5	87 {1810}	**0.0375**					
	SL0176	0-0.5	28.7 [36.2]	32.450	32.450		14.50	470.53	
		1-1.5	1.05	1.050		1.050	14.50		15.23
		2-2.5	1.05	1.050					
						Sum		732,274.39	911,708.75
						Section Area (ft2)		76,640.00	
						Spatial Average 0-1 (ppm)		9.55	
						Spatial Average 1-3 (ppm)		11.90	

Note:
See Notes following Table D-14.

TABLE D-9

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANKSOIL PCB AVERAGES (POST-REMOVAL) - PARK AREA

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft)	Area Weighted Location Avg. (1-3 ft)
T001	SL0001	0-0.5	0.58 {0.833}	0.707	0.707		400.10	282.67	
		1-1.5	5.07	5.070		55.535	400.10		22,219.55
		2-2.5	106	106.000					
	SL0002	0-0.5	1.87	1.870	1.870		1,315.00	2,459.05	
		1-1.5	2.38	2.380		5.790	1,315.00		7,613.85
		2-2.5	9.2	9.200					
	SL0003	0-0.5	3.55	3.550	3.550		1,193.70	4,237.64	
		1-1.5	0.96	0.960		0.750	1,193.70		895.28
		2-2.5	0.54	0.540					
T002	SL0410	0-0.5	13.2	13.200	13.200		724.90	9,568.68	
		1-1.5	6.94	6.94		3.505	724.90		2,540.77
		2-2.5	3.52 {10.5}	7.010					
	SL0411	0-0.5	7.01	7.01	7.010		525.50	3,683.76	
		1-1.5	0.85	0.847		12.324	525.50		6,476.00
		2-2.5	23.80	23.800					
	SL0412	0-0.5	24.6	24.6	24.600		31.00	762.60	
		1-1.5	25.80	25.800		13.865	31.00		429.82
		2-2.5	1.93	1.930					
T003	SL0004	0-0.5	0.32	0.32	0.320		492.80	157.70	
		1-1.5	0.4	0.400		0.400	492.80		197.12
		2-2.5	0.4 J	0.400					
	SL0005	0-0.5	74	**0.038**	0.038		817.40	30.65	
		1-1.5	11.4 {18.1}	14.750		10.075	817.40		8,235.31
		2-2.5	5.4 J	5.400					
	SL0006	0-0.5	9.4	9.4	9.400		375.10	3,525.94	
		1-1.5	0.94	0.940		0.950	375.10		356.35
		2-2.5	0.96 J	0.960					
T004	SL0407	0-0.5	ND(0.553)	0.277	0.277		534.80	147.87	
		1-1.5	ND(0.532)	0.226		0.256	534.80		137.04
		2-2.5	ND(0.573)	0.287					
	SL0408	0-0.5	70.3 {164}	**0.038**	0.038		492.90	18.48	
		1-1.5	67.60	67.600		54.900	492.90		27,060.21
		2-2.5	42.20	42.200					
	SL0409	0-0.5	68.8	**0.038**	0.038		669.30	25.10	
		1-1.5	47.3	47.300		41.650	669.30		27,876.35
		2-2.5	41 [31]	36.000					
T005	SL0007	0-0.5	23.8 [30.8]	**0.038**	0.038		233.14	8.74	
		1-1.5	75 {79.5}	**0.038**		0.038	233.14		8.74
	SL0008	0-0.5	73	73.000	73.000		642.90	46,931.70	
		1-1.5	46	46.000		41.800	642.90		26,873.22
		2-2.5	37.6	37.600					
	SL0009	0-0.5	4.34	4.340	4.340		421.70	1,830.18	
		1-1.5	1.1	1.100		1.100	421.70		463.87
T006	SL0404	0-0.5	ND(0.537)	0.269	0.269		757.3	203.34	
		1-1.5	0.996	0.996		1.548	757.3		1,172.30
		2-2.5	2.1	2.100					
	SL0405	0-0.5	21.3 {82.5}	51.900	51.900		489.6	25,410.24	
		1-1.5	6.76	6.760		5.005	489.6		2,450.45
		2-2.5	3.25	3.250					
	SL0406	0-0.5	4.65	4.650	4.650		168.1	781.67	
		1-1.5	ND(0.549)	0.275		0.278	168.1		46.69
		2-2.5	ND(0.562)	0.281					
						Sum		100065.99	135052.91
						Section Area (ft2)		20570.48	
						Spatial Average 0-1 (ppm)		9.73	
						Spatial Average 1-3 (ppm)		13.13	

Note:
See notes following Table D-14.

TABLE D-10

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (POST-REMOVAL) - AREA 2

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T051	SL0175	0-0.5	3.26	**0.0375**	0.038		689.20	25.85	
		1-1.5	9.9	**0.0375**		0.038	689.20		25.85
		2-2.5	87 {1810}	**0.0375**					
	SL0176	0-0.5	28.7 [36.2]	32.450	32.450		1,124.50	36,490.03	
		1-1.5	1.05	1.050		1.050	1,124.50		1,180.73
		2-2.5	1.05	1.050					
	SL0187	0-0.5	14	**0.0375**	0.038		331.50	12.43	
		1-1.5	0.318	**0.0375**		1.219	331.50		404.02
		2-2.5	2.4	2.400					
T052	SL0244	0-0.5	4.96 J	4.960	4.960		589.30	2,922.93	
		1-1.5	13	13.000		6.776	589.30		3,992.95
		2-2.5	0.383 {0.72}	0.552					
	SL0245	0-0.5	360	**0.0375**	0.038		540.80	20.28	
		1-1.5	24	24.000		20.000	540.80		10,816.00
		2-2.5	16	16.000					
	SL0246	0-0.5	180	**0.0375**	0.038		456.70	17.13	
		1-1.5	84	**0.0375**		9.019	456.70		4,118.86
		2-2.5	18	18.000					
T053	SL0181	0-0.5	22.9	**0.0375**	0.038		833.10	31.24	
		1-1.5	27 {81}	**0.0375**		5.619	833.10		4,680.98
		2-2.5	11.2	11.200					
	SL0185	0-0.5	43.5	**0.0375**	0.038		777.70	29.16	
		1-1.5	2.1	2.100		2.560	777.70		1,990.91
		2-2.5	3.02	3.020					
	SL0186	0-0.5	19.7	19.700	19.700		40.30	793.91	
		1-1.5	1.04	1.040		0.790	40.30		31.82
		2-2.5	0.539	0.539					
T054	SL0241	0-0.5	4.03	4.030	4.030		602.70	2,428.88	
		1-1.5	2.22 J	2.220		5.860	602.70		3,531.82
		2-2.5	9.5 J	9.500					
	SL0242	0-0.5	104 [104]	**0.0375**	0.038		690.00	25.88	
		1-1.5	31	31.0000		53.000	696.70		36,925.10
		2-2.5	75	75.000					
	SL0243	0-0.5	30 J{69.3}	49.6500	49.650		348.10	17,283.17	
		1-1.5	7.6	7.600		7.300	377.60		2,756.48
		2-2.5	7 J	7.000					
T055	SL0173	0-0.5	8.8	8.800	8.800		741.70	6,526.96	
		1-1.5	49	49.000		45.500	1,132.20		51,515.10
		2-2.5	42	42.000					
	SL0174	0-0.5	66 J[65 J] {128}	**0.0375**	0.038		700.10	26.25	
	SL0177	0-0.5	20.2 J	20.200	20.200		263.40	5,320.68	
		1-1.5	2.2	2.200		2.200	536.90		1,181.18
						Sum		71,954.77	123,151.79
						Section Area (ft2)		8,644.40	
						Spatial Average 0-1 (ppm)		8.32	
						Spatial Average 1-3 (ppm)		14.25	

Note:
See Notes following Table D-14.

TABLE D-11

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (POST-REMOVAL) - AREA 3

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T055	SL0173	0-0.5	8.8	8.800	8.800		180.30	1,586.64	
		1-1.5	49	49.000		45.500	234.70		10,678.85
		2-2.5	42	42.000					
	SL0174	0-0.5	66 J [65 J] {128}	**0.0375**	0.038		105.00	3.94	
	SL0177	0-0.5	20.2 J	20.200	20.200		116.80	2,359.36	
		1-1.5	2.2	2.200		2.200	155.20		341.44
T056	SL0238	0-0.5	7	7.000	7.000		688.90	4,822.30	
		1-1.5	10.4	10.400		5.470	688.90		3,768.28
		2-2.5	0.54	0.540					
	SL0239	0-0.5	18.1 J	18.100	18.100		583.10	10,554.11	
		1-1.5	7.3 {12.3}	9.800		10.750	594.70		6,393.03
		2-2.5	11.7	11.700					
	SL0240	0-0.5	2.2 J	2.200	2.200		813.50	1,789.70	
		1-1.5	1	1.000		1.690	813.50		1,374.82
		2-2.5	2.38 J	2.380					
T057	SL0178	0-0.5	29 J	**0.0375**	0.038		749.20	28.10	
		1-1.5	0.029	0.029		0.021	787.50		16.14
		2-2.5	ND(0.024)	0.012					
	SL0179	0-0.5	21 J [23 J] {42.9}	28.967	28.967		641.50	18,582.12	
		1-1.5	5.2 J	5.200		3.850	736.40		2,835.14
		2-2.5	2.5 J	2.500					
	SL0180	0-0.5	2.5 J	2.500	2.500		524.20	1,310.50	
		1-1.5	1.39 J	1.390		1.160	559.60		649.14
		2-2.5	0.93 J	0.930					
	LS-C-13	0-0.5	56.00	56.000	56.000		782.60	43,825.60	
T058	SL0235	0-0.5	17	**0.0375**	0.038		776.10	29.10	
		1-1.5	17.8	**0.0375**		0.038	929.60		34.86
		2-2.5	317 [1390 J]	**0.0375**					
	SL0236	0-0.5	70 {96.4}	**0.0375**	0.038		404.60	15.17	
		1-1.5	26 J	26.000		13.150	593.10		7,799.27
		2-2.5	0.3	0.300					
	SL0237	0-0.5	9.2 J	9.200	9.200		413.30	3,802.36	
		1-1.5	3.8 J	3.800		2.725	685.30		1,867.44
		2-2.5	1.65 J	1.650					
T059	SL0167	0-0.5	7.4 {10.7}	9.050	9.050		327.50	2,963.88	
		1-1.5	8.6	8.600		44.800	439.00		19,667.20
		2-2.5	81 J	81.000					
	SL0168	0-0.5	71 [66]	68.500	68.500		594.80	40,743.80	
		1-1.5	27.6	27.600		30.100	704.50		21,205.45
		2-2.5	32.6	32.600					
	SL0169	0-0.5	0.99 J	0.990	0.990		444.50	440.06	
		1-1.5	24.7 J	24.700		15.550	457.60		7,115.68
		2-2.5	6.4 J	6.400					
	LS-SOIL	SURFA	23.90	23.900	23.900		381.20	9,110.68	
T060	SL0232	0-0.5	36 [39 J]	**0.0375**	0.038		393.00	14.74	
		1-1.5	5.6	**0.0375**		0.038	393.00		14.74
		2-2.5	300 J	**0.0375**					
	SL0233	0-0.5	350	**0.0375**	0.038		392.00	14.70	
		1-1.5	22.5 J	22.5000		18.900	486.10		9,187.29
		2-2.5	13.7 {16.9 J}	15.300					
	SL0234	0-0.5	0.99	**0.0375**	0.038		217.90	8.17	
		1-1.5	304	**0.0375**		0.038	270.90		10.16
T061	SL0182	0-0.5	116	**0.0375**	0.038		404.30	15.16	
		1-1.5	156 J	**0.0375**		17.019	521.50		8,875.28
		2-2.5	34 J	34.000					
	SL0183	0-0.5	94 J	**0.0375**	0.038		318.70	11.95	
		1-1.5	157 J	**0.0375**		48.519	456.20		22,134.25
		2-2.5	97	97.0000					
	SL0184	0-0.5	12.9 J [12.1 J] {29.1}	**0.0375**	0.038		414.80	15.56	
		1-1.5	280 J	**0.0375**		0.038	608.30		22.81
		2-2.5	290	**0.0375**					
	LS-C-12	0-0.5	1.20	1.200	1.200		875.00	1,050.00	

TABLE D-11

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (POST-REMOVAL) - AREA 3

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T062	SL0229	0-0.5	7	**0.0375**	0.038		678.70	25.45	
		1-1.5	11.2	**0.0375**		0.038	710.60		26.65
		2-2.5	196 {298}	**0.0375**					
	SL0230	0-0.5	9.8	9.800	9.800		552.40	5,413.52	
		1-1.5	73	73.000		58.500	679.00		39,721.50
		2-2.5	44	44.000					
	SL0231	0-0.5	1.08 J	1.080	1.080		562.60	607.61	
		1-1.5	26.1 J	26.100		27.450	855.50		23,483.48
		2-2.5	28.8	28.800					
T063	SL0170	0-0.5	5.1	5.100	5.100		859.00	4,380.90	
		1-1.5	20.3	20.300		20.300	859.00		17,437.70
	SL0171	0-0.5	1100	**0.0375**	0.038		842.40	31.59	
		1-1.5	1440 J {1480}	**0.0375**		0.038	842.40		31.59
	SL0172	0-0.5	2.03	2.030	2.030		617.20	1,252.92	
		1-1.5	86 J	86.000		56.000	617.20		34,563.20
		2-2.5	26 J	26.000					
	LS-C-11	0-0.5	2.40	2.400	2.400		502.90	1,206.96	
						Sum		156,016.63	239,255.37
						Section Area (ft2)		16,133.50	
						Spatial Average 0-1 (ppm)		9.67	
						Spatial Average 1-3 (ppm)		14.83	

Note:
See Notes following Table D-14.

TABLE D-12

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (POST-REMOVAL) - AREA 4

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T056	SL0517	0-0.5	8.3 J	8.300	8.300		321.40	2,667.62	
		1-1.5	ND(0.78)	0.390		0.360	330.90		119.12
		2-2.5	ND(0.66)	0.330					
	SL0518	0-0.5	11 [12] {8.1 [9.03]}	10.033	10.033		210.90	2,115.85	
		1-1.5	26	26.000		24.000	253.90		6,093.60
		2-2.5	22	22.000					
	SL0519	0-0.5	83	**0.0375**	0.038		317.10	11.89	
		1-1.5	22	22.000		57.500	387.20		22,264.00
		2-2.5	93	93.000					
	SS-1	0-0.5	9.85	9.850	9.850		132.40	1,304.14	
T057	SL0136	0-0.5	2.39	2.390	2.390		431.80	1,032.00	
		1-1.5	5.7	5.700		5.085	436.80		2,221.13
		2-2.5	2.8 {6.14}	4.470					
	SL0137	0-0.5	18.1 [21.5]	19.800	19.800		376.20	7,448.76	
		1-1.5	16.5	16.500		9.410	376.20		3,540.04
		2-2.5	2.32	2.320					
	SL0138	0-0.5	12.8	12.800	12.800		184.60	2,362.88	
		1-1.5	93	93.000		108.000	191.40		20,671.20
		2-2.5	123 J	123.000					
	SS-28	0-0.5	4.65	4.650	4.650		4.30	20.00	
T058	SL0520	0-0.5	7.9 {30.3}	19.100	19.100		280.90	5,365.19	
		1-1.5	ND(0.74)	0.370		0.358	280.90		100.42
		2-2.5	ND(0.69)	0.345					
	SL0521	0-0.5	26	26.000	26.000		250.40	6,510.40	
		1-1.5	19	19.000		18.500	250.40		4,632.40
		2-2.5	18	18.000					
	SL0522	0-0.5	12	12.000	12.000		658.20	7,898.40	
		1-1.5	0.66	0.660		0.880	660.50		581.24
		2-2.5	1.1	1.100					
T059	SL0133	0-0.5	5.4	5.400	5.400		326.50	1,763.10	
		1-1.5	7.3 J {8.46}	7.880		8.140	326.50		2,657.71
		2-2.5	8.4	8.400					
	SL0134	0-0.5	11.3 [10.7]	11.000	11.000		601.00	6,611.00	
		1-1.5	42.1	42.100		30.850	601.00		18,540.85
		2-2.5	19.6	19.600					
	SL0135	0-0.5	9 J	9.000	9.000		529.50	4,765.50	
		1-1.5	0.89	0.890		0.628	529.50		332.53
		2-2.5	0.366	0.366					
T060	SL0523	0-0.5	0.53 J	0.530	0.530		566.30	300.14	
		1-1.5	15	15.000		12.350	566.30		6,993.81
		2-2.5	9.7	9.700					
	SL0524	0-0.5	14.8	14.800	14.800		494.50	7,318.60	
		1-1.5	0.56	0.560		0.430	494.50		212.64
		2-2.5	0.3 J	0.300					
	SL0525	0-0.5	9.1 J {6.53}	7.815	7.815		388.70	3,037.69	
		1-1.5	1.1	1.100		0.681	388.70		264.80
		2-2.5	ND(0.53) [ND(0.52)]	0.263					
T061	SL0139	0-0.5	6.37	**0.0375**	0.038		671.30	25.17	
		1-1.5	82	**0.0375**		0.038	671.30		25.17
		2-2.5	42	**0.0375**					
	SL0140	0-0.5	31	31.000	31.000		475.80	14,749.80	
		1-1.5	21.4	21.400		27.475	475.80		13,072.61
		2-2.5	27.8 {39.3}	33.550					
	SL0141	0-0.5	4.9 J	4.900	4.900		496.40	2,432.36	
		1-1.5	5.1	5.100		3.095	496.40		1,536.36
		2-2.5	1.09	1.090					
T062	SL0526	0-0.5	4.03	4.030	4.030		693.30	2,794.00	
		1-1.5	6.92	6.920		4.991	693.30		3,460.26
		2-2.5	3.062 J	3.062					
	SL0527	0-0.5	41	**0.0375**	0.038		629.50	23.61	
		1-1.5	11.9	11.900		12.400	629.50		7,805.80
		2-2.5	14 {11.8}	12.900					
	SL0528	0-0.5	3.17	3.170	3.170		401.70	1,273.39	
		1-1.5	0.446 J	0.446		0.598	401.70		240.02
		2-2.5	0.749 J	0.749					

TABLE D-12

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (POST-REMOVAL) - AREA 4

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T063	SL0142	0-0.5	22.2 {20.7}	21.450	21.450		305.20	6,546.54	
	SL0143	0-0.5	62.1	**0.0375**	0.038		571.30	21.42	
		1-1.5	11.8	11.800		15.950	878.90		14,018.46
		2-2.5	20.1	20.100					
	SL0144	0-0.5	8.3	8.300	8.300		457.10	3,793.93	
		1-1.5	37	37.000		24.050	459.10		11,041.36
		2-2.5	11.1	11.100					
T054	SL0514	0-0.5	17	17.000	17.000		77.90	1,324.30	
		1-1.5	12	12.000		7.750	77.90		603.73
		2-2.5	3.5	3.500					
T055	SL0130	0-0.5	23.4 {36}	**0.038**	0.038		498.60	18.70	
		1-1.5	35	35.000		25.250	498.60		12,589.65
		2-2.5	15.5	15.500					
	SL0131	0-0.5	24	24.000	24.000		101.70	2,440.80	
		1-1.5	24.9	24.900		17.900	101.70		1,820.43
		2-2.5	10.9	10.900					
	SL0132	0-0.5	38.2	38.200	38.200				
		1-1.5	5.2	5.200		4.850			
		2-2.5	4.5	4.500					
						Sum		95,977.18	155,439.31
						Section Area (ft2)		11,454.50	
						Spatial Average 0-1 (ppm)		8.38	
						Spatial Average 1-3 (ppm)		13.57	

Note:
See Notes following Table D-14.

TABLE D-13

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (POST-REMOVAL) - AREA 5

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T049	SL0122	0-0.5	8.9 J	**0.0375**	0.038		223.90	8.40	
		1-1.5	53 J	**0.0375**		0.038	223.90		8.40
		2-2.5	2300	**0.0375**					
	SL0123	0-0.5	48 [67]	**0.0375**	0.038		81.00	3.04	
		1-1.5	72	**0.0375**		0.038	88.80		3.33
		2-2.5	316 J	**0.0375**					
	SL0124	0-0.5	35900 {6920}	**0.0375**	0.038		8.30	0.31	
T050	SL0488	0-0.5	14.5	**0.0375**	0.038		521.00	19.54	
		1-1.5	67 {33.2}	**0.0375**		7.519	521.00		3,917.27
		2-2.5	15	15.000					
	SL0489	0-0.5	52	52.000	52.000		355.50	18,486.00	
		1-1.5	36	36.000		28.350	355.50		10,078.43
		2-2.5	20.7 J	20.700					
	SL0490	0-0.5	112	**0.0375**	0.038		17.00	0.64	
		1-1.5	42	42.000		29.700	17.00		504.90
		2-2.5	17.4	17.400					
T051	SL0127	0-0.5	5.8 {3.98}	**0.0375**	0.038		552.70	20.73	
		1-1.5	412	**0.0375**		33.519	552.70		18,525.81
		2-2.5	67	67.0000					
	SL0128	0-0.5	35.7 [32.5]	34.100	34.100		493.90	16,841.99	
		1-1.5	41	41.000		21.460	493.90		10,599.09
		2-2.5	1.92	1.920					
	SL0129	0-0.5	72	**0.0375**	0.038		257.40	9.65	
		1-1.5	16.3	16.300		9.060	257.40		2,332.04
		2-2.5	1.82	1.820					
T052	SL0511	0-0.5	1.8	1.800	1.800		259.50	467.10	
		1-1.5	ND(0.85)	0.425		0.448	259.50		116.13
		2-2.5	ND(0.94)	0.470					
	SL0512	0-0.5	6 J [2.3 J]	4.150	4.150		503.90	2,091.19	
		1-1.5	1.2	1.200		0.818	503.90		411.94
		2-2.5	ND(0.87)	0.435					
	SL0513	0-0.5	77 J	**0.0375**	0.038		86.70	3.25	
		1-1.5	93	93.000		63.750	86.70		5,527.13
		2-2.5	35 [34]	34.500					
T053	SL0115	0-0.5	26.5	**0.0375**	0.038		300.80	11.28	
		1-1.5	2.49	2.490		1.575	300.80		473.76
		2-2.5	0.66	0.660					
	SL0125	0-0.5	56 {46.3}	**0.0375**	0.038		128.70	4.83	
		1-1.5	56	56.000		67.500	128.70		8,687.25
		2-2.5	79	79.000					
	SL0126	0-0.5	116	**0.0375**	0.038		109.20	4.10	
		1-1.5	107	107.000		62.400	109.20		6,814.08
		2-2.5	17.8	17.800					
T054	SL0514	0-0.5	17	17.000	17.000		328.10	5,577.70	
		1-1.5	12	12.000		7.750	328.10		2,542.78
		2-2.5	3.5	3.500					
	SL0515	0-0.5	110	**0.0375**	0.038		345.40	12.95	
		1-1.5	240	**0.0375**		0.038	345.40		12.95
		2-2.5	550	**0.0375**					
	SL0516	0-0.5	72	**0.0375**	0.038		347.40	13.03	
		1-1.5	86 J {70.6 J}	**0.0375**		0.038	347.40		13.03
		2-2.5	150	**0.0375**					
						Sum		43,575.71	70,568.31
						Section Area (ft2)		4,920.40	
						Spatial Average 0-1 (ppm)		8.86	
						Spatial Average 1-3 (ppm)		14.34	

Note:
See Notes following Table D-14.

TABLE D-14

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (POST-REMOVAL) - AREA 6

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T019	SL0081	0-0.5	0.69	0.690	0.690		41.20	28.43	
		1-1.5	1.53 J	1.530		2.790	41.20		114.95
		2-2.5	4.3 J {3.8}	4.050					
	SL0082	0-0.5	3.5 J	3.500	3.500		111.80	391.30	
		1-1.5	4.84 J	4.840		5.555	131.40		729.93
		2-2.5	6.27 J	6.270					
	SL0083	0-0.5	1 J	1.000	1.000		135.20	135.20	
		1-1.5	20.8 J	20.800		20.800	187.70		3,904.16
	RB-5	0-0.5	1.00	1.000	1.000		609.20	609.20	
T020	SL0446	0-0.5	0.878	0.878	0.878		577.70	507.22	
		1-1.5	2.26	2.260		2.915	618.30		1,802.34
		2-2.5	3.57	3.570					
	SL0447	0-0.5	2.09	2.090	2.090		468.60	979.37	
		1-1.5	3.18	3.180		3.788	966.40		3,660.24
		2-2.5	2.74 {6.05}	4.395					
T021	SL0074	0-0.5	0.78	0.780	0.780		427.20	333.22	
		1-1.5	1.37 J	1.370		2.195	441.60		969.31
		2-2.5	3.02	3.020					
	SL0075	0-0.5	1.98 J {2.9}	2.440	2.440		711.80	1,736.79	
		1-1.5	4.96	4.960		8.780	787.00		6,909.86
		2-2.5	12.6	12.600					
	SL0076	0-0.5	51 J	51.000	51.000		421.90	21,516.90	
		1-1.5	0.38	0.380		0.249	451.70		112.47
		2-2.5	0.118	0.118					
	RB-4-3	0-1	4.1	4.100	4.100		268.80	1,102.08	
	RB-4-6	0-1	29	29.000	29.000		132.80	3,851.20	
	RB-4-9	0-1	76	76.000	76.000		506.10	38,463.60	
T022	SL0449	0-0.5	ND(0.634)	0.317	0.317		283.70	89.93	
		1-1.5	1.91 J	0.298		0.292	442.00		129.06
		2-2.5	ND(0.573)	0.287					
	SL0450	0-0.5	3.38	3.380	3.380		358.10	1,210.38	
		1-1.5	16.1	16.100		17.493	525.90		9,199.74
		2-2.5	3.82 [3.04] {49.8}	18.887					
	SL0451	0-0.5	5625	**0.0375**	0.038		881.20	33.05	
		1-1.5	631	**0.0375**		0.038	1,326.90		49.76
		2-2.5	35.86	**0.0375**					
T023	SL0084	0-0.5	0.73 J	0.730	0.730		654.50	477.79	
		1-1.5	1.97 J	1.970		5.835	654.50		3,819.01
		2-2.5	9.7 J	9.700					
	SL0085	0-0.5	2.72 J {4.61}	3.665	3.665		813.80	2,982.58	
		1-1.5	7.7 J	7.700		21.850	813.80		17,781.53
		2-2.5	36	36.000					
	SL0086	0-0.5	5.9	**0.0375**	0.038		1,535.80	57.59	
		1-1.5	570	**0.0375**		0.038	1,554.30		58.29
		2-2.5	470 J	**0.0375**					
T024	SL0452	0-0.5	4.5 {8.01}	6.255	6.255		874.40	5,469.37	
		1-1.5	2.22	2.220		3.910	874.40		3,418.90
		2-2.5	5.6	5.600					
	SL0453	0-0.5	23.5	23.500	23.500		267.80	6,293.30	
		1-1.5	41	41.000		54.500	267.80		14,595.10
		2-2.5	68	68.000					
	SL0454	0-0.5	37	**0.0375**	0.038		473.90	17.77	
		1-1.5	300	**0.0375**		0.038	479.60		17.99
		2-2.5	340	**0.0375**					
T025	SL0091	0-0.5	2.54	2.540	2.540		367.20	932.69	
		1-1.5	11	11.000		11.200	466.30		5,222.56
		2-2.5	11.4	11.400					
	SL0092	0-0.5	3.7 [3.28] {2.5}	3.160	3.160		508.80	1,607.81	
		1-1.5	4.2	4.200		6.000	851.00		5,106.00
		2-2.5	7.8	7.800					
	SL0093	0-0.5	104	**0.0375**	0.038		147.60	5.54	
	RB-3-3	0-1	14	14.000	14.000				
	RB-3-6	0-1	18	18.000	18.000		40.00	720.00	
	RB-3-9	0-1	39	39.000	39.000		615.80	24,016.20	

TABLE D-14

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (POST-REMOVAL) - AREA 6

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T026	SL0455	0-0.5	1.64	1.640	1.640		531.30	871.33	
		1-1.5	3.55	3.550		4.655	598.90		2,787.88
		2-2.5	5.76	5.760					
	SL0456	0-0.5	7.06	7.060	7.060		341.70	2,412.40	
		1-1.5	2.4 {4.45}	3.425		4.213	566.10		2,384.70
		2-2.5	5	5.000					
	SL0457	0-0.5	6	6.000	6.000		284.50	1,707.00	
		1-1.5	ND(0.52) J	0.260		0.370	349.10		129.17
		2-2.5	ND(0.52) [0.7 J]	0.480					
T027	SL0067	0-0.5	1.72	1.720	1.720		502.80	864.82	
		1-1.5	1.67	1.670		2.590	502.80		1,302.25
		2-2.5	3.51 J	3.510					
	SL0077	0-0.5	4.7 J[3.5 J]	4.100	4.100		678.20	2,780.62	
		1-1.5	6 {9.1}	7.550		7.550	678.20		5,120.41
	SL0087	0-0.5	1.68	1.680	1.680		312.50	525.00	
		1-1.5	3.26 J	3.260		2.250	312.50		703.13
		2-2.5	1.24	1.240					
T028	SL0458	0-0.5	ND(0.74)	0.370	0.370		367.00	135.79	
		1-1.5	1.6	1.600		1.000	367.00		367.00
		2-2.5	ND(0.8)	0.400					
	SL0459	0-0.5	4.8	4.800	4.800		395.80	1,899.84	
		1-1.5	5.6	5.600		3.800	395.80		1,504.04
		2-2.5	2	2.000					
	SL0460	0-0.5	1.8	1.800	1.800		832.20	1,497.96	
		1-1.5	21.5 {15.9}	18.700		10.750	832.20		8,946.15
		2-2.5	2.8	2.800					
T029	SL0094	0-0.5	0.46	0.460	0.460		255.60	117.58	
		1-1.5	0.52	0.520		1.385	255.60		354.01
		2-2.5	2.25 J	2.250					
	SL0095	0-0.5	0.41	0.410	0.410		856.30	351.08	
		1-1.5	0.541 J	0.541		6.271	856.30		5,369.43
		2-2.5	6.7 {17.3}	12.000					
	SL0096	0-0.5	4.2	4.200	4.200		711.70	2,989.14	
		1-1.5	2.17 J	2.170		2.865	711.70		2,039.02
		2-2.5	3.56	3.560					
	BE-0042	0-0.5	0.2	0.200	0.200		566.60	113.32	
		1-1.5	0.3	0.300		0.750	566.60		424.95
		2-2.5	1.2	1.200					
	BE-0043	0-0.5	2.7 [2.3]	2.500	2.500		403.60	1,009.00	
		1-1.5	49	49.000		32.500	403.60		13,117.00
		2-2.5	16	16.000					
T030	SL0461	0-0.5	ND(0.67) J [1.2 J] {1.08}	0.872	0.872		205.80	179.39	
		1-1.5	ND(0.76)	0.380		0.383	389.60		149.02
		2-2.5	ND(0.77)	0.385					
	SL0462	0-0.5	5.2	5.200	5.200		160.30	833.56	
		1-1.5	18.4	18.400		18.250	181.50		3,312.38
		2-2.5	18.1	18.100					
	SL0463	0-0.5	3.1	3.100	3.100		121.80	377.58	
		1-1.5	4.7	4.700		2.493	121.80		303.59
		2-2.5	ND(0.57)	0.285					
	BE-0044	0-0.5	4.9	4.900	4.900		64.60	316.54	
		1-1.5	16	16.000		28.000	519.90		14,557.20
		2-2.5	40	40.000					
	RB-2-3	0-1	4.3	7.300	7.300		10.40	75.92	
	RB-2-6	0-1	4.9	4.900	4.900		279.80	1,371.02	
	RB-2-9	0-1	12.6	12.600	12.600		534.80	6,738.48	
T031	SL0088	0-0.5	41	**0.0375**	0.038		415.60	15.59	
		1-1.5	17.6	17.600		11.950	542.50		6,482.88
		2-2.5	6.3	6.300					
	SL0089	0-0.5	15800	**0.0375**	0.038		455.20	17.07	
		1-1.5	1400	**0.0375**		0.038	493.10		18.49
		2-2.5	390 {529}	**0.0375**					
	SL0090	0-0.5	250	**0.0375**	0.038		223.00	8.36	
		1-1.5	520 J	**0.0375**		0.038	223.00		8.36
		2-2.5	540	**0.0375**					

TABLE D-14

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (POST-REMOVAL) - AREA 6

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T032	SL0464	0-0.5	6.2	**0.0375**	0.038		977.70	36.66	
		1-1.5	26.3	**0.0375**		0.038	977.70		36.66
		2-2.5	500	**0.0375**					
	SL0465	0-0.5	13	13.000	13.000		793.70	10,318.10	
		1-1.5	0.96	0.960		0.971	793.70		770.88
		2-2.5	ND(0.55) {1.69}	0.983					
	SL0466	0-0.5	15.1	**0.0375**	0.038		317.70	11.91	
T033	SL0100	0-0.5	187	**0.0375**	0.038		791.10	29.67	
		1-1.5	32	32.000		27.700	791.10		21,913.47
		2-2.5	23.4	23.400					
	SL0101	0-0.5	62	62.000	62.000		957.70	59,377.40	
		1-1.5	0.5 J	0.500		0.750	962.50		721.88
		2-2.5	1	1.000					
	SL0102	0-0.5	13.6 [9.3]	11.450	11.450		418.10	4,787.25	
		1-1.5	2.08 J {4.08}	3.080		3.490	437.80		1,527.92
		2-2.5	3.9	3.900					
T034	SL0467	0-0.5	2.03	**0.0375**	0.038		548.60	20.57	
		1-1.5	6.1 [6.42]	6.260		32.480	670.70		21,784.34
		2-2.5	58.7	58.700					
	SL0468	0-0.5	45.41 {173}	**0.0375**	0.038		176.30	6.61	
		1-1.5	65.34	65.340		46.070	252.30		11,623.46
		2-2.5	26.8	26.800					
	SL0469	0-0.5	71.1	71.100	71.100		579.10	41,174.01	
		1-1.5	ND(0.534)	0.267		0.265	670.70		177.40
		2-2.5	ND(0.542)	0.262					
T035	SL0097	0-0.5	4.6	4.600	4.600		186.50	857.90	
		1-1.5	4.79	4.790		14.845	371.90		5,520.86
		2-2.5	24.9	24.900					
	SL0098	0-0.5	7.2 [8.5]	7.850	7.850		446.60	3,505.81	
		1-1.5	7.4	7.400		8.000	502.20		4,017.60
		2-2.5	8.6	8.600					
	SL0099	0-0.5	36 {54.4}	**0.0375**	0.038		380.50	14.27	
		1-1.5	540	**0.0375**		0.038	538.50		20.19
		2-2.5	470	**0.0375**					
	RB-1-3	0-1	130	**0.0375**	0.038		126.30	4.74	
	RB-1-6	0-1	160	**0.0375**	0.038		217.10	8.14	
	RB-1-9	0-1	110	**0.0375**	0.038		398.90	14.96	
T036	SL0470	0-0.5	0.927	0.927	0.927		276.80	256.59	
		1-1.5	1.55	1.550		1.445	276.80		399.98
		2-2.5	1.34	1.340					
	SL0471	0-0.5	11.95 {10.8}	11.375	11.375		458.10	5,210.89	
		1-1.5	42	42.000		36.000	458.10		16,491.60
		2-2.5	30	30.000					
	SL0472	0-0.5	56.5	56.500	56.500		438.20	24,758.30	
		1-1.5	8.1	8.100		9.145	438.20		4,007.34
		2-2.5	10.19	10.190					
	NS-37	0-2	24	24.000	24.000		131.90	3,165.60	
		2-4	16	16.000		20.000	131.90		2,638.00
T037	SL0103	0-0.5	174	**0.0375**	0.038		460.90	17.28	
		1-1.5	198	**0.0375**		13.719	460.90		6,322.97
		2-2.5	27.4	27.400					
	SL0104	0-0.5	4.8	4.800	4.800		525.00	2,520.00	
		1-1.5	5.2	5.200		6.100	525.00		3,202.50
		2-2.5	7	7.000					
	SL0105	0-0.5	260 {67.7}	**0.0375**	0.038		174.30	6.54	
		1-1.5	570	**0.0375**		0.038	174.30		6.54
		2-2.5	400	**0.0375**					
T038	SL0473	0-0.5	2.08	2.080	2.080		812.30	1,689.58	
		1-1.5	19.23	19.230		23.630	812.30		19,194.65
		2-2.5	28.03	28.030					
	SL0474	0-0.5	9.28	9.280	9.280		364.60	3,383.49	
		1-1.5	98.2	98.200		90.138	364.60		32,864.13
		2-2.5	58.2 [65.3] {109 [95.8]}	82.075					
	SL0475	0-0.5	11.2	**0.0375**	0.038		287.40	10.78	
		1-1.5	121	**0.0375**		57.469	287.40		16,516.52
		2-2.5	114.9	114.900					

TABLE D-14

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (POST-REMOVAL) - AREA 6

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T039	SL0106	0-0.5	12.9 J	12.900	12.900		85.30	1,100.37	
		1-1.5	19	19.000		39.000	303.30		11,828.70
		2-2.5	59	59.000					
	SL0107	0-0.5	9.7	9.700	9.700		528.20	5,123.54	
		1-1.5	75	75.000		67.500	742.90		50,145.75
		2-2.5	60	60.000					
	SL0108	0-0.5	7.5	7.500	7.500		364.50	2,733.75	
		1-1.5	29 {41.2}	35.100		95.550	519.40		49,628.67
		2-2.5	156 J	156.000					
	RB-8-6	0-0.5	7.09	7.090	7.340		406.90	2,986.65	
		0.5-1	7.56	7.590					
	RB-8-9	0-0.5	8.13	8.130	9.620		288.50	2,773.93	
		0.5-1	11.10	11.100					
T040	SL0476	0-0.5	2.54	2.540	2.540		354.30	899.92	
		1-1.5	5.2 J	0.565		1.288	335.80		432.34
		2-2.5	2.01	2.010					
	SL0477	0-0.5	0.922	0.922	0.922		481.50	443.94	
		1-1.5	9.1 {12.2}	10.650		102.925	534.00		54,961.95
		2-2.5	195.2	195.200					
	SL0478	0-0.5	3.71	**0.0375**	0.038		369.00	13.84	
		1-1.5	24.03	**0.0375**		0.038	406.10		15.23
		2-2.5	285	**0.0375**					
T041	SL0116	0-0.5	5.3 J	5.300	5.300		392.40	2,079.72	
		1-1.5	14.5	14.500		15.750	392.40		6,180.30
		2-2.5	17	17.000					
	SL0117	0-0.5	22.6 [20.8]	21.700	21.700		550.90	11,954.53	
		1-1.5	32.1	32.100		26.750	550.90		14,736.58
		2-2.5	21.4	21.400					
	SL0118	0-0.5	45	45.000	45.000		439.20	19,764.00	
		1-1.5	160	160.000		93.900	439.20		41,240.88
		2-2.5	19.2 {36.4}	27.800					
T042	SL0479	0-0.5	2.21	2.210	2.210		559.20	1,235.83	
		1-1.5	14.8	14.800		10.245	559.20		5,729.00
		2-2.5	5.69	5.690					
	SL0480	0-0.5	58.1 {45.9}	**0.0375**	0.038		311.10	11.67	
		1-1.5	408.6	**0.0375**		0.038	357.10		13.39
		2-2.5	471	**0.0375**					
	SL0481	0-0.5	366.4 [392.7]	**0.0375**	0.038		473.30	17.75	
		1-1.5	515.8	**0.0375**		0.038	590.40		22.14
		2-2.5	74.5	**0.0375**					
	RB-9	0-0.5	4.17	4.170	4.170				
T043	SL0109	0-0.5	20 [24.6]	**0.0375**	0.038		382.00	14.33	
		1-1.5	8.6	**0.0375**		0.379	382.00		144.68
		2-2.5	0.72	0.720					
	SL0110	0-0.5	7.1	**0.0375**	0.038		388.40	14.56	
		1-1.5	169	**0.0375**		0.038	185.40		6.95
		2-2.5	152	**0.0375**					
	SL0111	0-0.5	ND (18)	5.600	5.600		656.60	5,909.40	
		1-1.5	16.9 J	16.900		46.200	839.40		38,780.28
		2-2.5	55 {96}	75.500					
T044	SL0482	0-0.5	5.29	5.290	5.290		453.80	2,400.60	
		1-1.5	21.3	21.300		19.150	453.80		8,690.27
		2-2.5	17	17.000					
	SL0483	0-0.5	9.98	9.980	9.980		461.30	4,603.77	
		1-1.5	22.3	22.300		38.500	461.30		17,760.05
		2-2.5	54.7	54.700					
	SL0484	0-0.5	ND(0.527) {0.788}	0.526	0.526		300.90	158.20	
		1-1.5	3.41	3.410		3.125	300.90		940.31
		2-2.5	2.84	2.840					

TABLE D-14

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE REACH OF HOUSATONIC RIVER
AREA WEIGHTED TOTAL BANK SOIL PCB AVERAGES (POST-REMOVAL) - AREA 6

Transect	Location ID	Depth(feet)	PCB Conc. (ppm)	PCB Conc. (ppm)	Avg. PCB Conc. (ppm) 0-1' DWA	Avg. PCB Conc. (ppm) 1-3' DWA	Surface Area (ft2)	Area Weighted Location Avg. (0-1 ft.)	Area Weighted Location Avg. (1-3 ft.)
T045	SL0119	0-0.5	12.4 {8.72}	10.560	10.560		371.70	3,925.15	
		1-1.5	4.5	4.500		6.950	371.70		2,583.32
		2-2.5	9.4	9.400					
	SL0120	0-0.5	6.1	6.100	6.100		519.50	3,168.95	
		1-1.5	24.2	24.200		31.100	519.50		16,156.45
		2-2.5	38	38.000					
	SL0121	0-0.5	3.3 J	3.300	3.300		566.80	1,870.44	
		1-1.5	20.2 J	20.200		54.100	566.80		30,663.88
		2-2.5	88 J	88.000					
T046	SL0485	0-0.5	45	**0.0375**	0.038		855.20	32.07	
		1-1.5	20.2	**0.0375**		11.644	871.90		10,152.19
		2-2.5	21.7 [24.8]	23.250					
	SL0486	0-0.5	283	**0.0375**	0.038		625.70	23.46	
		1-1.5	39	39.000		38.000	625.70		23,776.60
		2-2.5	37	37.000					
	SL0487	0-0.5	5.1	5.100	5.100		150.30	766.53	
		1-1.5	ND(0.52) {1.36}	0.810		0.810	150.30		121.74
	RB-6	0-2	53.00	53.000	53.000		392.30	20,791.90	
		2-4	4.70	4.700		4.700	392.30		1,843.81
	RB-10	0-0.5	7,760.00	**0.0375**	0.038		628.20	23.56	
T047	SL0112	0-0.5	9.1	**0.0375**	0.038		465.60	17.46	
		1-1.5	9.1	9.100		4.587	531.20		2,436.35
		2-2.5	0.073	0.073					
	SL0113	0-0.5	24.8	24.800	24.800		571.60	14,175.68	
		1-1.5	40.4 J	40.400		27.900	784.20		21,879.18
		2-2.5	15.4	15.400					
	SL0114	0-0.5	24.6 J	24.600	24.600		465.80	11,458.68	
		1-1.5	6.9	6.900		5.368	587.10		3,151.26
		2-2.5	2.49 J {5.18}	3.835					
	BE-0039	0-0.5	141	**0.0375**	0.038		207.80	7.79	
		1-1.5	76	**0.0375**		0.038	539.90		20.25
		2-2.5	189	**0.0375**					
	BE-0040	0-0.5	5,793	**0.0375**	0.038		592.00	22.20	
		1-1.5	2,477	**0.0375**		0.038	614.30		23.04
		2-2.5	464	**0.0375**					
	BE-0041	0-0.5	1,001	**0.0375**	0.038		713.90	26.77	
		1-1.5	1,996	**0.0375**		0.038	871.50		32.68
		2-2.5	1,744	**0.0375**					
	RB-7	0-2	1,400	**0.0375**	0.038		246.30	9.24	
		2-4	177	**0.0375**		0.038	334.00		12.53
	RB-12	0-0.5	50.1	**0.0375**	0.038		435.50	16.33	
	RB-11	0-0.5	19.4	**0.0375**	0.038		465.00	17.44	
T049	SL0122	0-0.5	8.9 J	**0.0375**	0.038		51.20	1.92	
		1-1.5	53 J	**0.0375**		0.038	52.30		1.96
		2-2.5	2300	**0.0375**					
	SL0123	0-0.5	48 [67]	**0.0375**	0.038		159.30	5.97	
		1-1.5	72	**0.0375**		0.038	868.00		32.55
		2-2.5	316 J	**0.0375**					
	SL0124	0-0.5	35900 {6920}	**0.0375**	0.038		407.60	15.29	
						Sum		422,581.06	730,886.37
						Section Area		49,931.20	
						Spatial Average 0-1 (ppm)		8.46	
						Spatial Average 1-3 (ppm)		14.64	

Note:
See Notes following Table D-14.

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER ½-MILE REACH OF HOUSATONIC RIVER
NOTES FOR TABLES D-1 THROUGH D-14

Notes:

1) J - estimated concentration
2) [2.01] - result of duplicate sample
3) {218} - result of GE spilt sample
4) ND(0.615) - compound was not detected, associated detection limit presented in parenthesis
5) Duplicate and GE split samples were averaged prior to spatial average calculation; one-half the detection limit was used for non-detect results.
6) Bold concentration indicates sample removed as part of the proposed removal.
7) Removal proposed to achieve spatial average PCB concentrations of 10 ppm at 0-1 foot, 15 ppm at 1-3 feet, and Appendix IX standards in each of the areas designated by USEPA.
8) PCB concentration of 0.0375 ppm used as "clean backfill" concentration for removal areas.
9) Pre-Removal spatial average PCB concentration for Area 1 includes removal recently completed at Building 68.
10) Post-Removal spatial average PCB concentrations do not include removal proposed as part of Source Control Activities at Lyman Street.
11) Post-Removal spatial average PCB concentrations include removal proposed as part of the Source Control Activities at East Street Area 2.
12) Post-Removal spatial average PCB concentrations do not include removal proposed strictly for bank stabilization.

TABLE D-15

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE OF HOUSATONIC RIVER
CALCULATION OF IN-SITU BANK SOIL REMOVAL VOLUME

Sample ID	Removal Depth (ft)	Removal Area (sq. ft)	Removal Volume (cu. ft.)	Reason for Removal
NORTH BANK				
SL0005	1	817.4	817.4	PCB
SL0408	1	492.9	492.9	PCB
SL0409	1	669.3	669.3	PCB
SL0007	2	240.3	480.6	PCB
SL0009	2	421.7	843.4	Appendix IX + 3
BW0037	2	83.84	167.68	PCB
SL0398	1	195.62	195.62	PCB
SL0032	3	400.6	1201.8	PCB
SL0031	3	68.3	204.9	PCB
SL0395	3	168.9	506.7	PCB
SL0396	2	751.3	1502.6	PCB
SL0035	1	830	830	PCB
SL0340	2	384.2	768.4	PCB
SL0015	3	276.4	829.2	PCB
SL0327	3	286.2	858.6	PCB
SL0023	3	450.6	1351.8	PCB
SL0323	3	471.54	1414.62	PCB
SL0019	3	423.4	1270.2	PCB
SL0040	2	330.8	661.6	PCB
SL0318	3	378.6	1135.8	PCB
SL0319	2	209.8	419.6	PCB
SL0320	3	343.9	1031.7	PCB
BW-0034	3	172.6	517.8	PCB
BW-0035	3	132.7	398.1	PCB
BW-0036	3	722.1	2166.3	PCB
SL0048	1	201	201	PCB
SL0038	2	359.2	718.4	PCB
SL0317	1	202.7	202.7	PCB
SL0316	2	274.3	548.6	PCB
SL0315	2	478.2	956.4	PCB
SL0147	1	505.9	505.9	PCB
36CEB10	3	751.3	2253.9	PCB
SL0189	3	218.1	654.3	PCB
SL0188	3	211.2	633.6	PCB
SL0190	3	250	750	PCB
36CEB9	3	61.5	184.5	PCB
SL0283	3	373	1119	PCB
SL0284	1	446.6	446.6	PCB
SL0151	2	498.8	997.6	PCB
SL0153	2	255.6	511.2	Appendix IX + 3
SL0166	1	91.1	91.1	Appendix IX + 3
SL0175	3	877	2631	PCB
SL0246	2	456.7	913.4	PCB
SL0187	2	331.5	663	Appendix IX + 3
SL0245	1	540.8	540.8	PCB
SL0242	1	690.7	690.7	PCB
SL0181	2	833.1	1666.2	PCB
SL0174	1	805.1	805.1	PCB
SL0185	1	777.7	777.7	PCB

TABLE D-15

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE OF HOUSATONIC RIVER
CALCULATION OF IN-SITU BANK SOIL REMOVAL VOLUME

Sample ID	Removal Depth (ft)	Removal Area (sq. ft)	Removal Volume (cu. ft.)	Reason for Removal
SL0178	1	749.2	749.2	PCB
SL0236	1	404.6	404.6	PCB
SL0235	3	929.6	2788.8	PCB
SL0234	2	270.9	541.8	PCB
SL0233	1	392	392	Appendix IX + 3
SL0232	3	393	1179	PCB
SL0184	3	608.3	1824.9	PCB
SL0183	2	456.2	912.4	PCB
SL0182	2	521.5	1043	PCB
SL0229	3	710.6	2131.8	PCB
SL0171	3	842.4	2527.2	PCB
SOUTH BANK				
SL0451	3	1326.9	3980.7	PCB
SL0086	3	1554.3	4662.9	PCB
SL0454	3	479.6	1438.8	PCB
SL0093	1	147.6	147.6	Appendix IX + 3
SL0088	1	415.6	415.6	PCB
SL0089	3	493.1	1479.3	PCB
SL0090	3	223	669	PCB
SL0464	3	977.7	2933.1	PCB
SL0466	1	317.7	317.7	Appendix IX + 3
SL0100	1	791.1	791.1	PCB
SL0467	1	548.6	548.6	PCB
SL0468	1	176.3	176.3	PCB
RB-1-6	1	217.1	217.1	PCB
RB-1-3	1	126.3	126.3	PCB
RB-1-9	1	398.9	398.9	PCB
SL0099	3	538.5	1615.5	PCB
SL0105	3	174.3	522.9	PCB
SL0103	2	460.9	921.8	PCB
SL0475	2	287.4	574.8	Appendix IX + 3
SL0478	3	406.1	1218.3	PCB
SL0480	3	357.1	1071.3	PCB
SL0481	3	590.4	1771.2	PCB
SL0485	2	871.9	1743.8	PCB
SL0486	1	625.7	625.7	PCB
SL0109	2	382	764	PCB
SL0110 (0-1') SL0110 (1-3')	1 2	388.4 185.4	388.4 370.8	 PCB
RB-10	1	628.2	628.2	PCB
SL0112	1	465.6	465.6	PCB
BE-0039	3	539.9	1619.7	PCB
BE-0041	3	871.5	2614.5	PCB
BE-0040	3	614.3	1842.9	PCB
RB-7	3	334	1002	PCB
SL0123	3	956.8	2870.4	PCB
SL0124	1	415.9	415.9	PCB
SL0122	3	276.2	828.6	PCB
SL0488	2	521	1042	PCB
SL0490	1	17	17	PCB

TABLE D-15

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN - UPPER 1/2 MILE OF HOUSATONIC RIVER
CALCULATION OF IN-SITU BANK SOIL REMOVAL VOLUME

Sample ID	Removal Depth (ft)	Removal Area (sq. ft)	Removal Volume (cu. ft.)	Reason for Removal
SL0129	1	257.4	257.4	PCB
SL0127	2	552.7	1105.4	PCB
SL0513	1	86.7	86.7	PCB
SL0126	1	109.2	109.2	PCB
SL0115	1	300.8	300.8	PCB
SL0125	1	128.7	128.7	PCB
SL0515	3	345.4	1036.2	PCB
SL0516	3	347.4	1042.2	PCB
SL0130	1	498.6	498.6	PCB
SL0519	1	317.1	317.1	PCB
SL0139	3	671.3	2013.9	PCB
SL0527	1	629.5	629.5	PCB
SL0143	1	571.3	571.3	PCB
	Total Vol (cu. ft.) Total Volume (c.y.)*		106029.32 3927	

Note:

* The in-situ bank soil volume of 3,927 cubic yards is based on polygon removal to meet the specified Performance Standards. Additional bank soil will be excavated as part of the lower bank and swale erosion protection measures (267 cubic yards) and slope reduction performed in areas of removal where bank slopes are greater than 1:1 (100 cubic yards).

Appendix E

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Water Diversion Sheetpile Depth Calculations

Appendix E

Water Diversion Sheetpile Depth Calculations

TASK:

To perform a preliminary geotechnical/structural calculation for the sheetpile wall design. A sheetpile wall may be used to provide excavation stability and to divert the river water under a flood event with 5-feet of water above the river bed outside the sheetpile cell.

REFERENCE:

1. NAVFAC DM-7, March, 1971

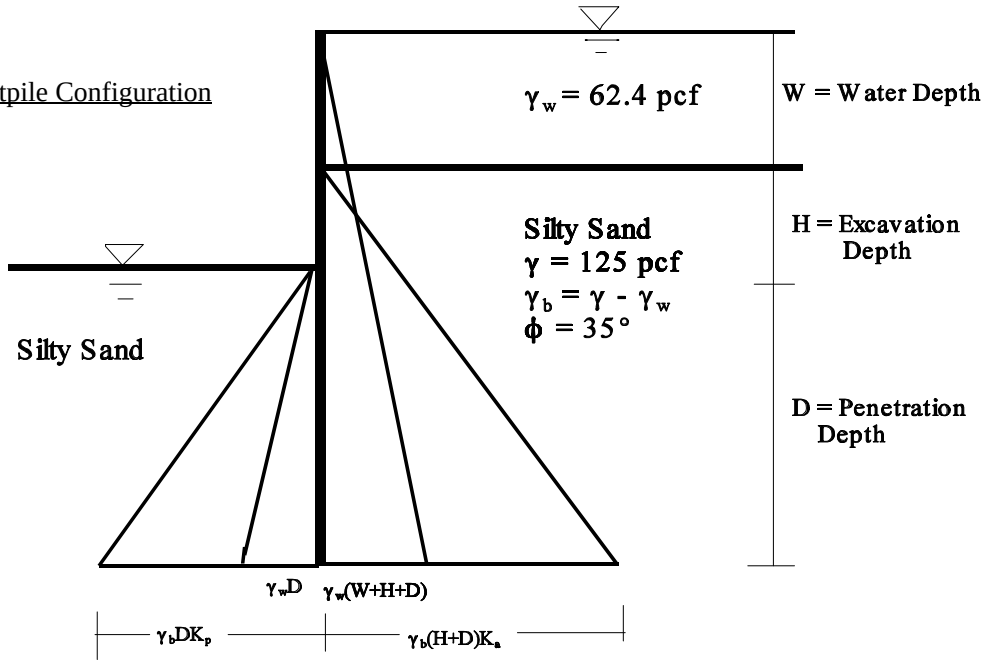
METHODOLOGY:

This design calculation uses a typical sheetpile configuration based on the site conditions to determine pile penetration depths and the maximum bending moments at different excavation depths of 0, 1.5, 2.0, and 2.5 feet. For the selected sheetpile, factors of safety against both pile toppling and pile break are also calculated.

CALCULATIONS:

I - Procedures

1) Typical Sheetpile Configuration



2) Determine K_a and K_p

From Sheet 3, for N = 35E and $ = 0E, K_a = 0.27, K_p = 3.7

3) Forces Acting on the Pile

Active Forces: $F_A = 0.5 (_w (W+H+D)^2 + 0.5 (_b (H+D)^2 K_a$

Passive Forces: $F_P = 0.5 (_w D^2 + 0.5 (_b D^2 K_p$

4) Moments Acting on the Pile

Active Moments: $M_A = (1/6) (_w (W+H+D)^3 + (1/6) (_b (H+D)^3 K_a$

Passive Moments: $M_P = (1/6) (_w D^3 + (1/6) (_b D^3 K_p$

5) Zero-Shear Point O

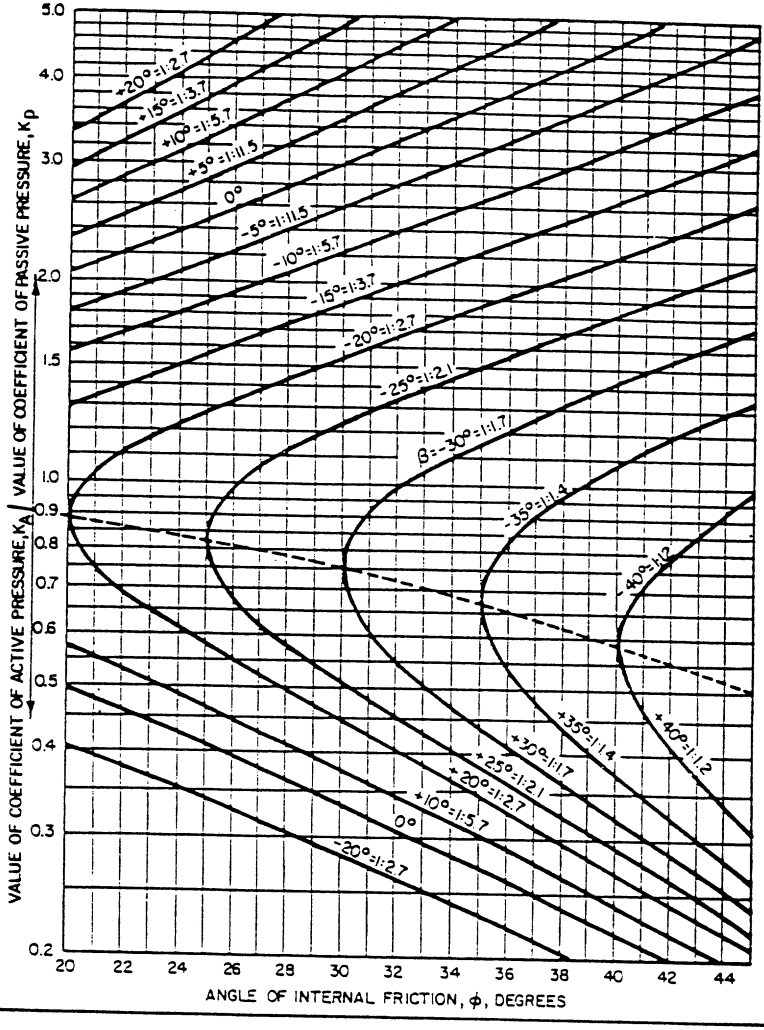
Location of Pt. O is determined by finding a point along the pile where summation of the shear forces is zero.

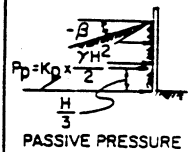
6) Penetration Depth D

Penetration depth is determined by varying the D to a point where the summation of moments is zero and the summation of the forces is positive (passive). No additional depth increase is added. A factor of safety against pile toppling of 1.0 assumed.

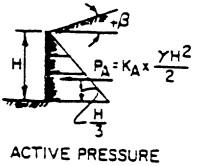
7) Maximum Moment at Pt O

Finally, the maximum moment at Pt O is determined for sizing the pile.





PASSIVE PRESSURE



ACTIVE PRESSURE

$$K_A = \left[\frac{\cos\phi}{1+\sqrt{\sin\phi(\sin\phi-\cos\phi\tan\beta)}}\right]^2 ; \quad K_P = \left[\frac{\cos\phi}{1-\sqrt{\sin\phi(\sin\phi+\cos\phi\tan\beta)}}\right]^2$$

K_A & K_P = COEFFICIENTS FOR COULOMB'S EQUATION FOR ACTIVE AND PASSIVE EARTH PRESSURE (NO SHEAR STRESS ON VERTICAL PLANES).

P_A = ACTIVE RESULTANT
P_P = PASSIVE RESULTANT
γ = UNIT WEIGHT OF SOIL
H = HEIGHT OF WALL
ϕ = ANGLE OF INTERNAL FRICTION
β = SLOPE ANGLE

FIGURE 3
Active and Passive Coefficients, Sloping Backfill
(Granular Soils)

II - Calculations

Detailed calculations are performed by computer spreadsheets. The results of the calculations for varying excavation depths of 0, 1.5, 2, and 2.5 feet are presented on Sheets 5 through 8.

Case No.	Pile Depth (ft)				Factor of Safety	
	W	H	D	Total	Toppling	Minimum Required Section Modulus for F_y = 36 ksi (in^3)
1	5	0	8	13	1.0	1.57
2	5	1.5	10	16.5	1.0	3.64
3	5	2.0	11	18	1.0	4.62
4	5	2.5	12	19.5	1.0	5.77

Notes:

W water depth on sheeting

H removal depth

D depth below bottom of excavation

Cantilever Sheet Pile Design
0' Excavation/5' Water

Trial 1

H (ft)	D (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
0	7.5	0.27	3.7	125	5	1.5

	Force			Moment		
Passive	8,269			20,673		
Active	(5,350)			(21,501)		
Total	2,919			(828)		

Trial 2

H (ft)	D (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
0	10	0.27	3.7	125	5	2

	Force			Moment		
Passive	14,701			49,003		
Active	(7,865)			(37,917)		
Total	6,836			11,086		

Trial 3

H (ft)	D (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
0	7.765	0.27	3.7	125	5	1.553

	Force			Moment		
Passive	8,864			22,943		
Active	(5,593)			(22,951)		
Total	3,271			(8)	**OK**	

Zero-Shear Pt. O

H (ft)	O (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
0	4.5	0.27	3.7	125	5	0.9

	Force			Moment		
Passive	2,977			4,465		
Active	(2,987)			(9,173)		
Total	(10)			(4,708)	**OK**	
SIGy	36,000	PSI	**S**	**1.57**	**IN^3**	
INCREASE D BY 0% (FS =1)			**D**	**8**	**FT**	

DRAFT

Cantilever Sheet Pile Design
1.5' Excavation/5' Water

Trial 1

H (ft)	D (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
1.5	9.75	0.27	3.7	125	5	1.5

	Force	Moment
Passive	13,975	45,419
Active	(9,308)	(48,637)
Total	4,667	(3,218)

Trial 2

H (ft)	D (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
1.5	13	0.27	3.7	125	5	2

	Force	Moment
Passive	24,845	107,660
Active	(13,641)	(85,703)
Total	11,204	21,958

Trial 3

H (ft)	D (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
1.5	10.3675	0.27	3.7	125	5	1.595

	Force	Moment	
Passive	15,801	54,607	
Active	(10,067)	(54,618)	
Total	5,734	(11)	**OK**

Zero-Shear Pt. O

H (ft)	O (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
1.5	6.0775	0.27	3.7	125	5	0.935

	Force	Moment	
Passive	5,430	11,000	
Active	(5,421)	(21,918)	
Total	9	(10,918)	**OK**

SIGy	36,000	PSI	**S**	**3.64**	**IN^3**
INCREASE D BY 0% (FS =1)			**D**	**10**	**FT**

Cantilever Sheet Pile Design
2' Excavation/5' Water

Trial 1

H (ft)	D (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
2	10.5	0.27	3.7	125	5	1.5

	Force	Moment
Passive	16,208	56,727
Active	(10,875)	(61,239)
Total	5,332	(4,512)

Trial 2

H (ft)	D (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
2	14	0.27	3.7	125	5	2

	Force	Moment
Passive	28,814	134,465
Active	(15,923)	(107,853)
Total	12,891	26,612

Trial 3

H (ft)	D (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
2	11.249	0.27	3.7	125	5	1.607

	Force	Moment	
Passive	18,603	69,754	
Active	(11,874)	(69,756)	
Total	6,729	(3)	**OK**

Zero-Shear Pt. O

H (ft)	O (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
2	6.58	0.27	3.7	125	5	0.94

	Force	Moment	
Passive	6,365	13,961	
Active	(6,376)	(27,825)	
Total	(11)	(13,864)	**OK**

SIGy	36,000	PSI	**S**	**4.62**	**IN^3**
INCREASE D BY 0% (FS =1)			**D**	**11**	**FT**

Cantilever Sheet Pile Design
2.5' Excavation/5' Water

Trial 1

H (ft)	D (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
2.5	11.25	0.27	3.7	125	5	1.5

	Force	Moment
Passive	18,606	69,772
Active	(12,567)	(75,878)
Total	6,039	(6,105)

Trial 2

H (ft)	D (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
2.5	15	0.27	3.7	125	5	2

	Force	Moment
Passive	33,077	165,386
Active	(18,383)	(133,560)
Total	14,694	31,826

Trial 3

H (ft)	D (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
2.5	12.135	0.27	3.7	125	5	1.618

	Force	Moment	
Passive	21,648	87,568	
Active	(13,839)	(87,558)	
Total	7,810	10	**OK**

Zero-Shear Pt. O

H (ft)	O (ft)	Ka	Kp	Density(pcf)	W(ft)	Df
2.5	7.125	0.27	3.7	125	5	0.95

	Force	Moment	
Passive	7,463	17,725	
Active	(7,456)	(35,045)	
Total	7	(17,320)	**OK**

SIGy	36,000	PSI	**S**	**5.77**	**IN^3**
INCREASE D BY 0% (FS =1)			**D**	**12**	**FT**

Appendix F

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Dewatering Rate Assessment/Potential Effects in Areas of NAPL

Appendix F

Dewatering Rate Assessment/Potential Effects in Areas of NAPL

1.0 Introduction

This appendix presents the following information:

- projections of dewatering rates for the removal of Housatonic River sediments along the ½-Mile Reach; and
- results of an analysis of possible effects of dewatering in areas where NAPLs may be present.

Groundwater modeling was utilized for the preparation of the dewatering projections. A description of the model development, data input, and results is provided in Section 2 below. Section 3 presents the assessment results for dewatering in potential areas of NAPL.

2.0 Assessment of Dewatering Rates for Sediment Removal

Model Development and Input

A simplified three-dimensional groundwater flow model was constructed to assess dewatering pumpage rates within sheetpile containment cells which may be selected as the water diversion containment technique for sediment removal from the ½-Mile Reach. Visual MODFLOW™, a well-documented and publicly available groundwater modeling code, was applied for this assessment.

The model was constructed as a simple rectangle (2000 x 1060 feet) with the basic elements of the observed hydrogeologic system input as boundary conditions and hydraulic properties. The rectangle was discretized into a 200 x 106 x 3 grid. Thus, each grid block was 10 x 10 feet in the horizontal direction. The vertical layer elevations were set at 990, 960, 950, and 930 feet above mean sea level (amsl). The 990 foot elevation represented the maximum ground surface elevation and the 930 foot elevation represented the deepest till elevations observed along the ½-Mile Reach . The 960 and 950 foot elevations were set to facilitate sheetpile depths. Modeling the till at an elevation of 930 feet provides the thickest sequence of saturated material that would be encountered. This physical configuration provides

a conservative approach since a thicker sequence of saturated materials will yield more water during simulated dewatering.

The Housatonic River was simulated as a straight line, six grid blocks wide (60 feet) in the top layer, horizontally along the centerline of the grid. The Housatonic River was represented as a constant head boundary with constant heads set at 971.5 and 972 feet amsl. The 972 elevation was only used adjacent to and 150 feet upstream of the sheetpile containments that constricted the width of the river channel. Constant heads were also set along the northern and southern model boundaries that were 500 feet away from the edge of the simulated river. These constant heads were set at 980 feet amsl, which approximated recently-observed water level data collected along East Street (April 1998).

A recharge rate of 10 inches per year was applied uniformly over the entire grid. A horizontal hydraulic conductivity value of 60 feet per day was simulated for the saturated soil materials, which is consistent with values calculated based on the results of pumping tests performed at East Street Area 2. The vertical hydraulic conductivity was 10 times less than the horizontal conductivity. The hydraulic conductivity (K) value was applied uniformly across the grid. This value is within the upper end of median ranges for the materials observed along the ½-Mile Reach .

The sheetpile was given a thickness of 0.25 inches (0.021 feet) and a hydraulic conductivity of 0.0284 feet per day or 1×10^{-5} centimeters per second (this is considered conservative based on extensive field testing at the CFB Borden site in Canada and at other locations that have demonstrated that permeabilities of $1x10^{-8}$ to $1x10^{-10}$ cm/sec can be achieved in practice). The basic sheetpile configuration simulated was a 3-sided configuration, which had sheetpile in the middle of the river, with lengths varying from 100 up to 900 feet, and two wing walls to the northern bank. The depth of the sheetpile containment was varied to assess sheetpile depths of 960, 950, and 930 feet amsl. The 930 depth represented sheetpile fully penetrating the sand and gravel deposits and keyed into the till.

The representation of dewatering within the sheetpile containment was done by setting constant heads within the containment at 968 feet amsl, which represented a sediment excavation depth of approximately 2 feet. Thus, there was a four foot head difference across the sheetpile wall on the river side of the containment. The MODFLOW zone budget option was used to assess the volume of water entering the constant heads within the containment and thus, the projected pumpage rates necessary to maintain water levels at 968 feet amsl within the containment.

Model Results

The model results for dewatering pumpage rates are presented on Table F-1 in this appendix. Modeling back-up also is provided on a number of figures in this appendix. As shown on Table F-1, the simulated steady state dewatering rates range from approximately 55 to more than 350 gallons per minute (gpm). As would be expected, the longer the containment cell, the higher the required pumping rates.

It is appropriate to emphasize that these projections are for steady state conditions. There will likely be higher short-term pumpage requirements during the initial stages of the dewatering activities.

3.0 Assessment of Potential Dewatering Effects in Areas of Observed/Potential NAPL

Model Development and Input

To assess the potential for mobilization of DNAPL during the proposed sediment removal actions with the river, a simplified two-dimensional, cross-sectional groundwater flow model was constructed. This model estimates the vertical gradients within the saturated overburden materials below and adjacent to the Housatonic River (assuming several different sheetpile depths) during construction activities. As with the dewatering rate assessments, Visual MODFLOW™, a well-documented and publicly available groundwater modeling code, was applied for this assessment. A cross-sectional model was constructed rather than using the three layer dewatering model to allow the assessment of vertical gradients on a much smaller scale (i.e., over a couple of feet versus over tens of feet).

The cross-sectional model was designed with 24 layers and 200 rows. There was only one active column or slice of grid blocks that trended north-south perpendicular to, and across the river. The cross-section was 1000 feet long and 50 feet thick. Each row was 5 feet wide and the thickness of most of the model layers was two feet. The top two layers, which were not used for any of the vertical gradient calculations, were set at three feet thick to facilitate grid design (50 can not be divided evenly to achieve two foot increments). The river, located at the center of the section, was 60 feet wide (12 grid blocks).

The same hydrogeologic conceptualization used for the dewatering model was also used in the cross-sectional model. That is, the base of the model, corresponding with the top of till, was set at 930 feet above mean sea level. The northern and southern model boundaries were set as constant heads with elevations of 980 feet above mean sea level. The Housatonic River was represented as a constant head boundary with heads set at 971.5 feet above mean sea level for no sheetpile conditions and 972 feet above mean sea level with sheet piling. The dewatering elevation was set as a

constant head at 968 feet above mean sea level for most of the simulations; one simulation was run with a dewatering elevation of 966 feet above mean sea level.

As with the dewatering model, a recharge rate of 10 inches per year was applied across the top of the slice. A horizontal hydraulic conductivity of 60 feet/day was used. The vertical hydraulic conductivities were 10 times less than the horizontal conductivities. These were the same values used in the dewatering model. Again, as used previously, the sheetpile thickness was set at 0.25 inches (0.021 feet) and the sheetpile hydraulic conductivity was 0.0284 feet/day or 1×10^{-5} centimeters/second. Four sheetpile depths (960, 950, 940, and 930 feet above mean sea level) were simulated. The 930 foot depth represented a fully penetrating sheetpile keyed into the till.

Model Results

The simulated equipotential distribution was evaluated to determine vertical gradients under the river and under the river bank before and after sheetpile placement, and during the dewatering. The gradients were assessed across two grid blocks at eight different elevations (932, 936, 940, 944, 948, 952, 956, and 960) for the location under the river and under the river bank. The resultant vertical gradients are summarized on the attached graphs. As shown, there is little difference in the simulated gradients with differing sheetpile depths, or when the hydraulic conductivity was reduced. There was also not a significant increase when the dewatering elevation was lowered to 966 feet above mean sea level to represent an excavation bottom. Only at elevations relatively close to the excavation bottom elevation did the gradients begin to increase above 0.05.

The DNAPLs in East Street Area 2 appear to be coal tar based with a specific gravity of about 1.08. Data for DNAPLs in other areas within the ½-Mile Reach indicates that they are of different origins with a specific gravity of approximately 1.5. Assuming a DNAPL specific gravity of 1.08, the anticipated hydraulic gradient necessary to mobilize the NAPL would be 0.08, while a DNAPL density of 1.5 would require a hydraulic gradient of 0.50. As shown on the graphs, the simulated gradients did not approach values greater than 0.03 near the till surface where the DNAPL is typically present. The vertical gradient only exceeded values of 0.05 within 10 to 15 feet of the dewatering elevation, and never exceeded 0.3 below 10 feet of the dewatering elevation.

Since the coal tar DNAPLs in the East Street Area 2 section of the river are deep (the till surface is as low as elevation 936 feet) and sediment excavations are shallow (less than 3 feet) in this area, upward mobilization of the coal tar DNAPLs is not expected due to dewatering and excavation activities.

In the remaining areas, the DNAPLs would be heavy (specific gravity of 1.5) if they are present and are not expected to be remobilized upward due to dewatering and excavation activities.

With respect to LNAPL, source control containment barriers were installed at East Street Area 2 and will be installed at Lyman Street in 1999. These barriers have been or are being designed and installed to reflect the consideration that dewatering will occur adjacent to them. Therefore, they are designed to penetrate sufficiently to preclude LNAPL (if it occurs) from migrating below these walls into the excavations.

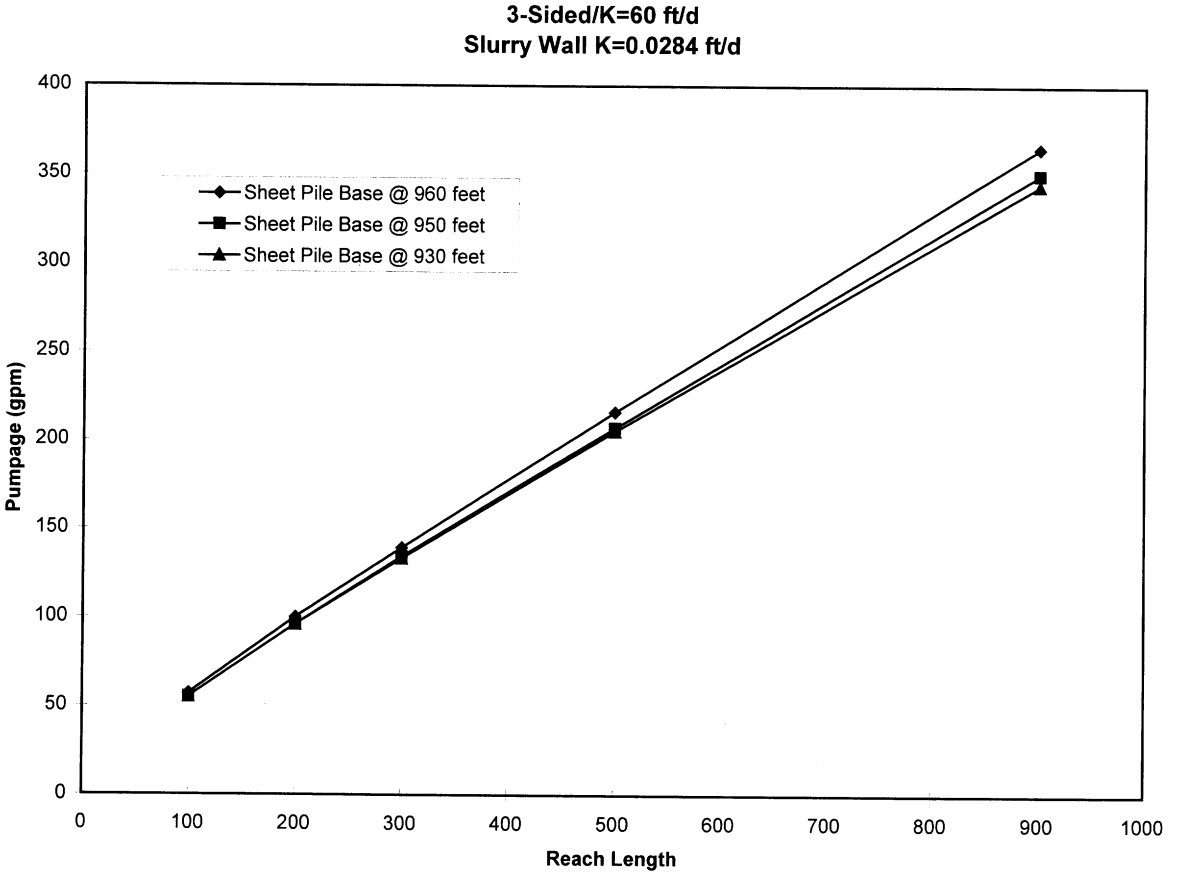
Appendix F, Section 2.0 Back-Up

TABLE F-1
SIMULATED STEADY STATE DEWATERING RATES FOR
HOUSATONIC RIVER SEDIMENT REMOVAL

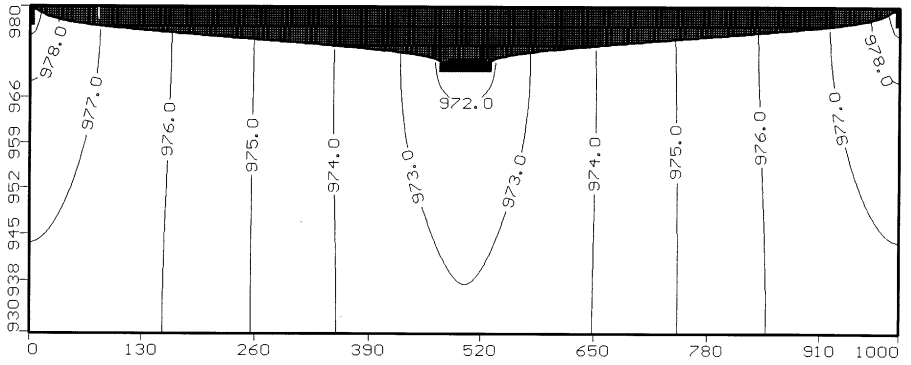
Reach Length (feet)	3-Sided Wall		
	Base @ 960'	Base @ 950'	Base @ 930"
	Rate (gpm)	Rate (gpm)	Rate (gpm)
100	57	55	55
200	100	96	96
300	139	134	133
500	216	207	205
909	365	350	344

Notes:

1. All dewatering rats reported in gallons per minute (gpm).
2. Hydraulic conductivity (K) - 60 feet per day (ft/d).
3. Aquifer K = 60 ft/d, Slurry Wall K = 0.0284 ft/d (0.00001 cm/sec).
4. All dewatering rates are under simulated steady state conditions. Initial short-term, transient dewatering rates will be as much as 3 times higher.
5. 3-Sided wall refers to sheet pile in river and two wind walls back to the river bank.
6. Base @ refers to bottom elevation of sheet pile wall.
7. Top of till surface was assumed to be at an elevation of 930 feet above mean sea level (amsl).
8. The dewatering elevation maintained within the containment was 968 feet amsl representing approximately 2 feet of sediment removal.


3-Sided/K=60 ft/d
Slurry Wall K=0.0284 ft/d
Sheet Pile Base @ 960 feet
Sheet Pile Base @ 950 feet
Sheet Pile Base @ 930 feet
Pumpage (gpm)
Reach Length
0
50
100
150
200
250
300
350
400
0
100
200
300
400
500
600
700
800
900
1000

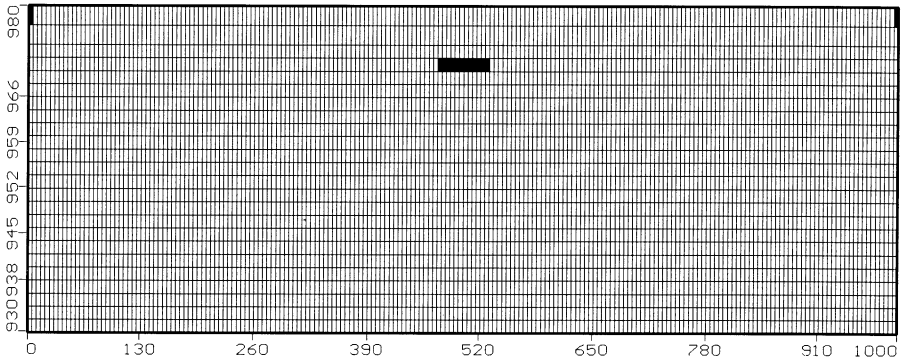
DRAFT



Blasland, Bouck & Lee, Inc. – Syracuse,
Project: 1/2 Mile Reach Hous53
Description: Xsect – No Sheet Pile
7 Jan 99

Visual MODFLOW v.2.11, (c) 1995
Waterloo Hydrogeologic Software
NC: 3 NR: 200 NL: 24
Current Column: 2

DRAFT

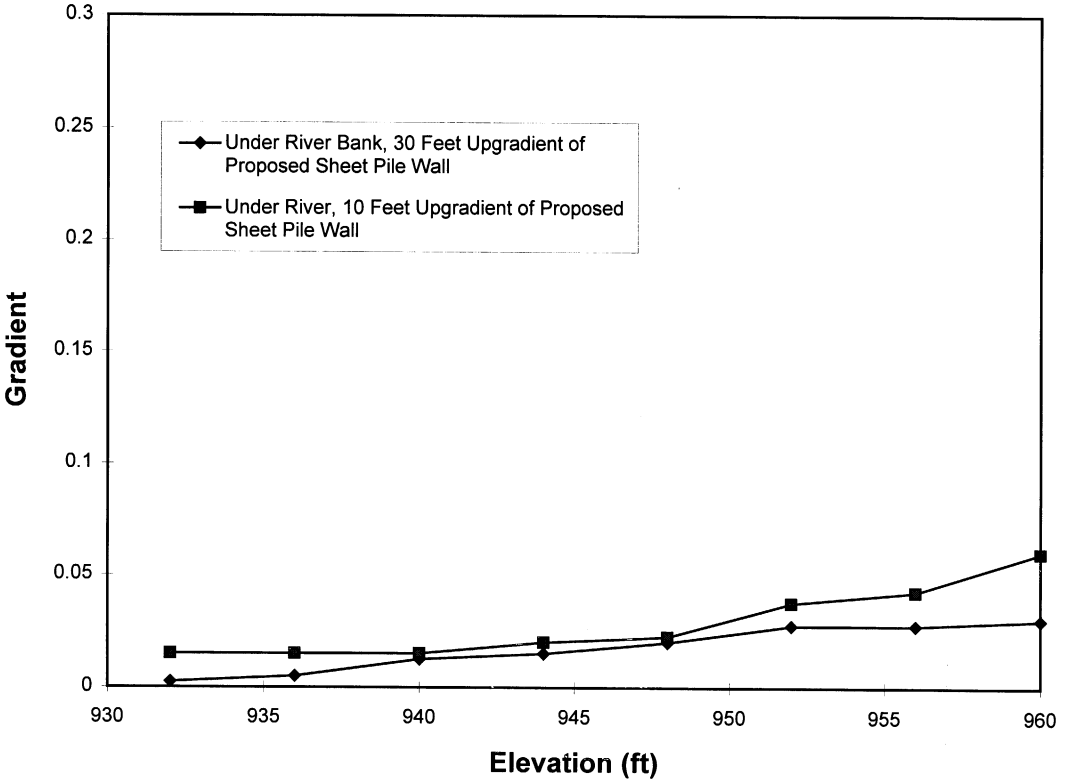


Blasland, Bouck & Lee, Inc. – Syracuse, Project: 1/2 Mile Reach Hous53 Description: Xsect – Grid & Cst Heads 7 Jan 99	Visual MODFLOW v.2.11, (c) 1995 Waterloo Hydrogeologic Software NC: 3 NR: 200 NL: 24 Current Column: 2

DRAFT

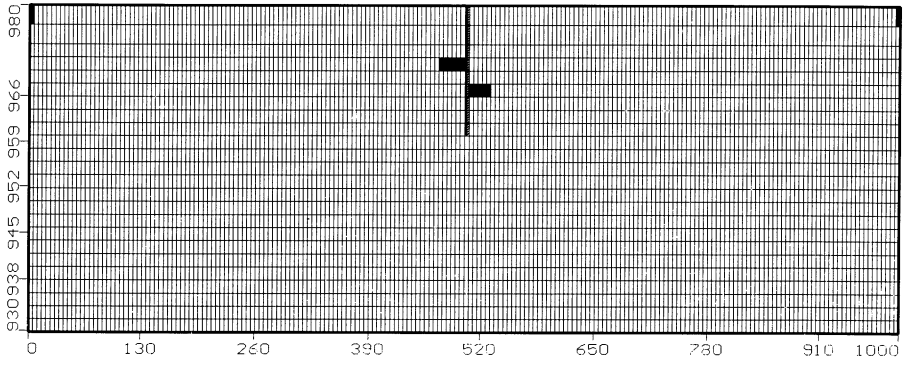
Vertical Gradients

No Sheet Pile Wall



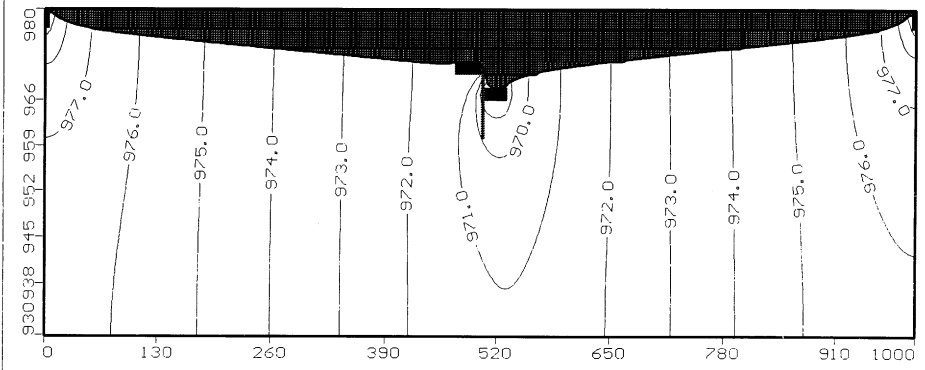
GRAD53.XLS

DRAFT



Blasland, Bouck & Lee, Inc. — Syracuse, Project: 1/2 Mile Reach Hous54 Description: Xsect — Wall & Cst Heads 7 Jan 99	Visual MODFLOW v.2.11, (c) 1995 Waterloo Hydrogeologic Software NC: 3 NR: 200 NL: 24 Current Column: 2

DRAFT

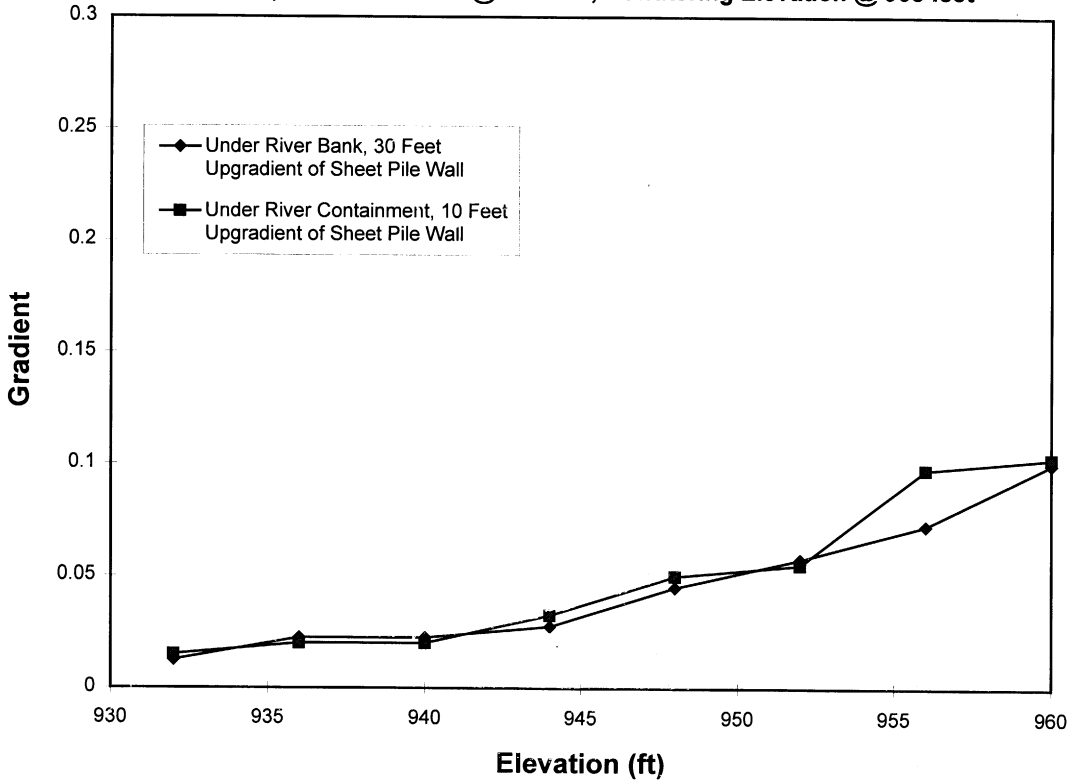


Blasland, Bouck & Lee, Inc. — Syracuse, Project: 1/2 Mile Reach Hous54 Description: Xsect 960'/968 dewat 7 Jan 99	Visual MODFLOW v.2.11, (c) 1995 Waterloo Hydrogeologic Software NC: 3 NR: 200 NL: 24 Current Column: 2

DRAFT

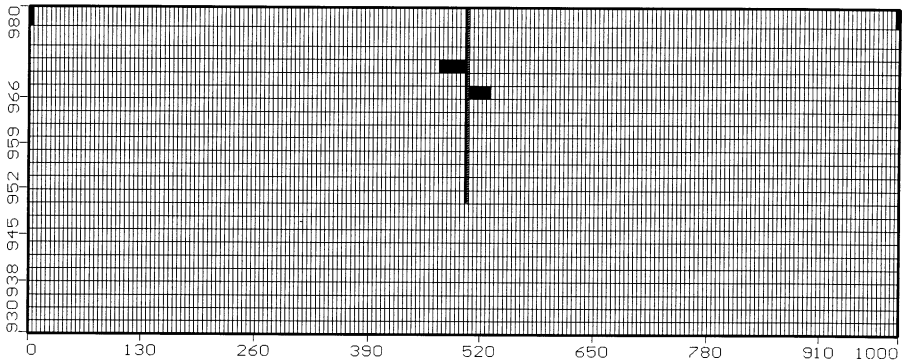
Vertical Gradients

K= 60 ft/d, Sheet Pile Base @ 960 feet, Dewatering Elevation @ 968 feet



GRAD54.XLS

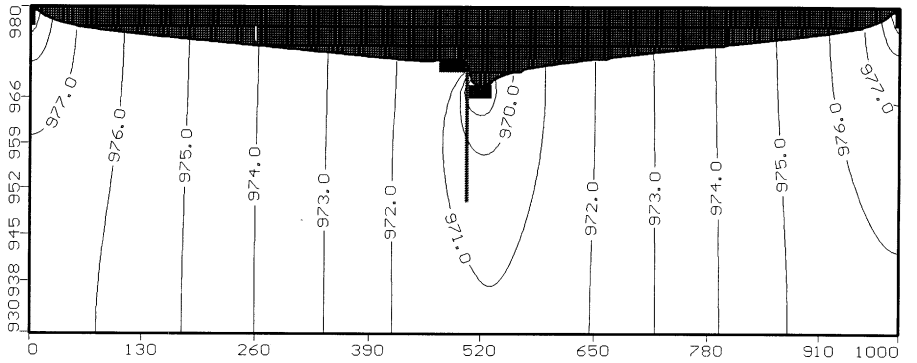
DRAFT



Blasland, Bouck & Lee, Inc. – Syracuse,
Project: 1/2 Mile Reach Hous55
Description: Xsect – Wall & Cst Heads
7 Jan 99

Visual MODFLOW v.2.11, (c) 1995
Waterloo Hydrogeologic Software
NC: 3 NR: 200 NL: 24
Current Column: 2

DRAFT



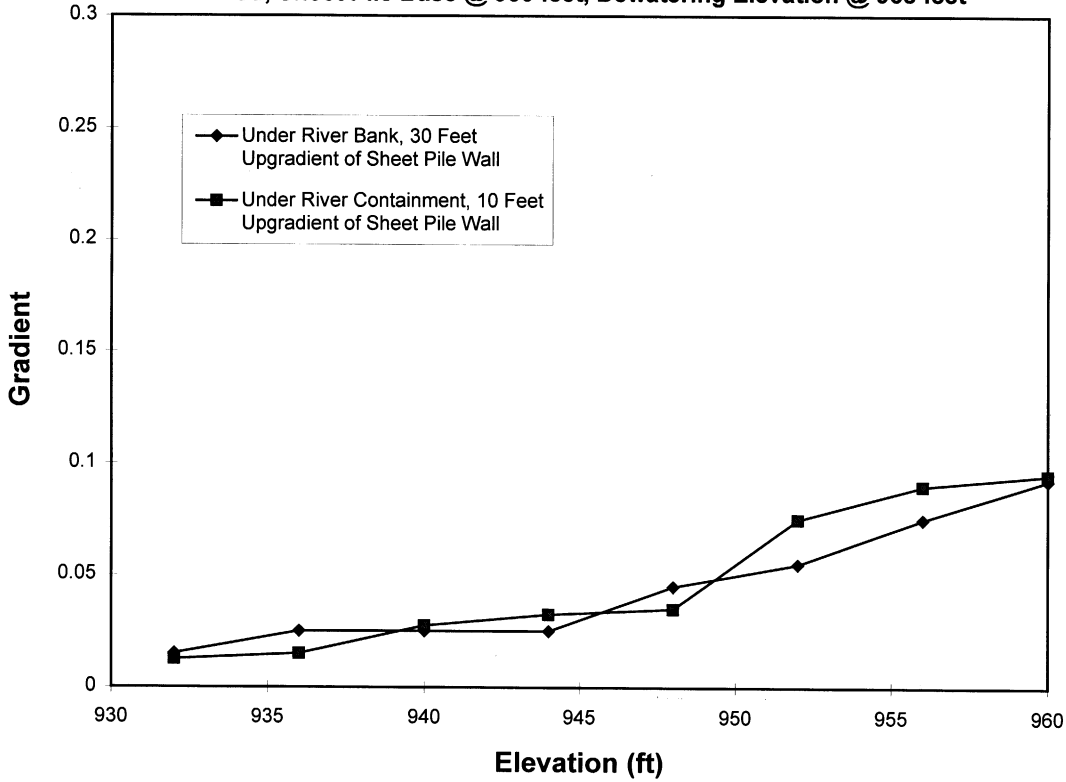
Blasland, Bouck & Lee, Inc. – Syracuse,
Project: 1/2 Mile Reach Hous55
Description: Xsect 950'/968' dewat
7 Jan 99

Visual MODFLOW v.2.11, (c) 1995
Waterloo Hydrogeologic Software
NC: 3 NR: 200 NL: 24
Current Column: 2

DRAFT

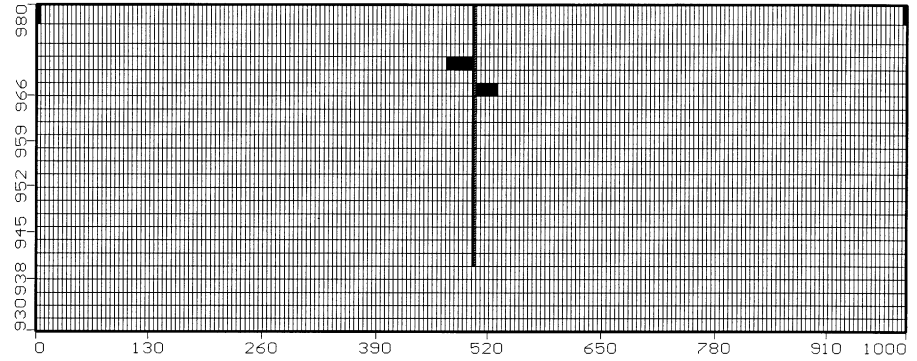
Vertical Gradients

K=60 ft/d, Sheet Pile Base @ 950 feet, Dewatering Elevation @ 968 feet



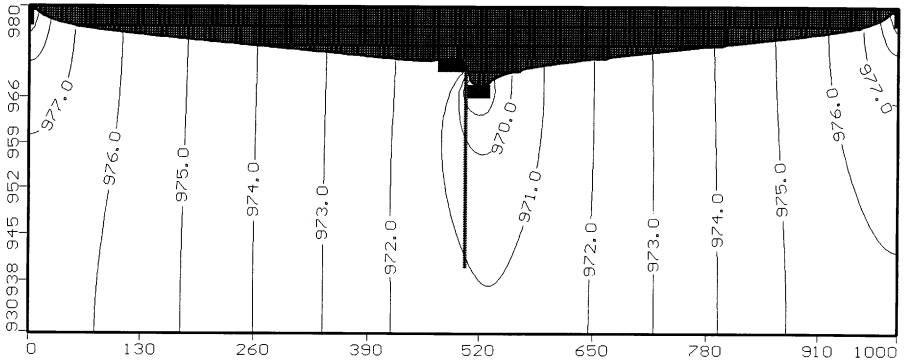
GRAD55.XLS

DRAFT



Blasland, Bouck & Lee, Inc. – Syracuse, Project: 1/2 Mile Reach Hous56 Description: Xsect – Wall & Cst Heads 7 Jan 99	Visual MODFLOW v.2.11, (c) 1995 Waterloo Hydrogeologic Software NC: 3 NR: 200 NL: 24 Current Column: 2

DRAFT



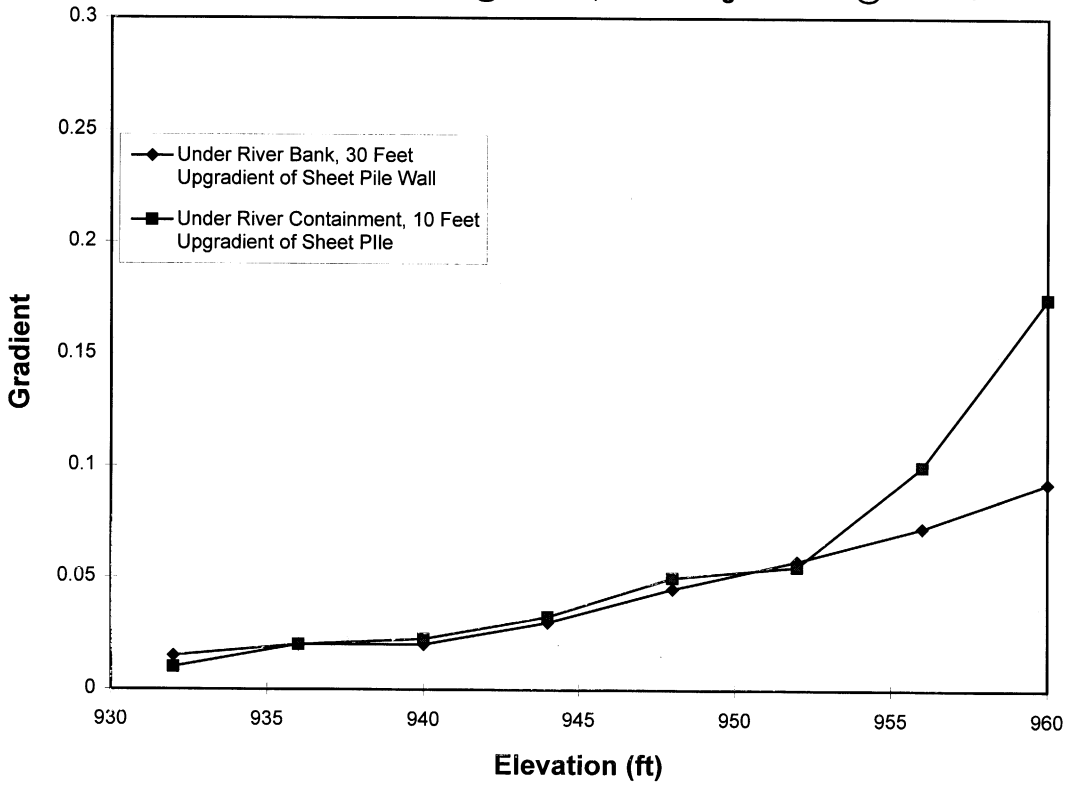
Blasland, Bouck & Lee, Inc. – Syracuse,
Project: 1/2 Mile Reach Hous56
Description: Xsect 940'/968 dewat
7 Jan 99

Visual MODFLOW v.2.11, (c) 1995
Waterloo Hydrogeologic Software
NC: 3 NR: 200 NL: 24
Current Column: 2

DRAFT

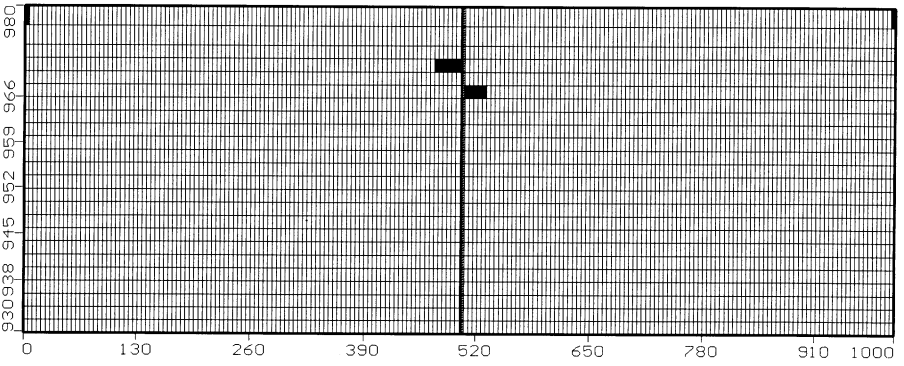
Vertical Gradients

K=60 ft/d, Sheet Pile Base @ 940 feet, Dewatering Elevation @ 968 feet



GRAD56.XLS

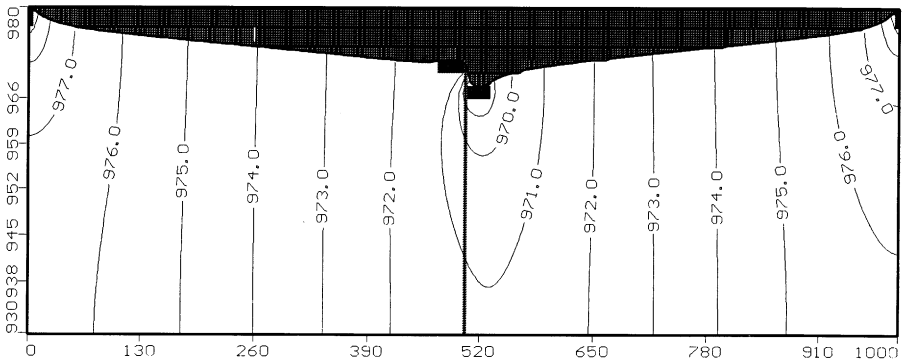
DRAFT



Blasland, Bouck & Lee, Inc. – Syracuse,
Project: 1/2 Mile Reach Hous57
Description: Xsect – Wall & Cst Heads
7 Jan 99

Visual MODFLOW v.2.11, (c) 1995
Waterloo Hydrogeologic Software
NC: 3 NR: 200 NL: 24
Current Column: 2

DRAFT



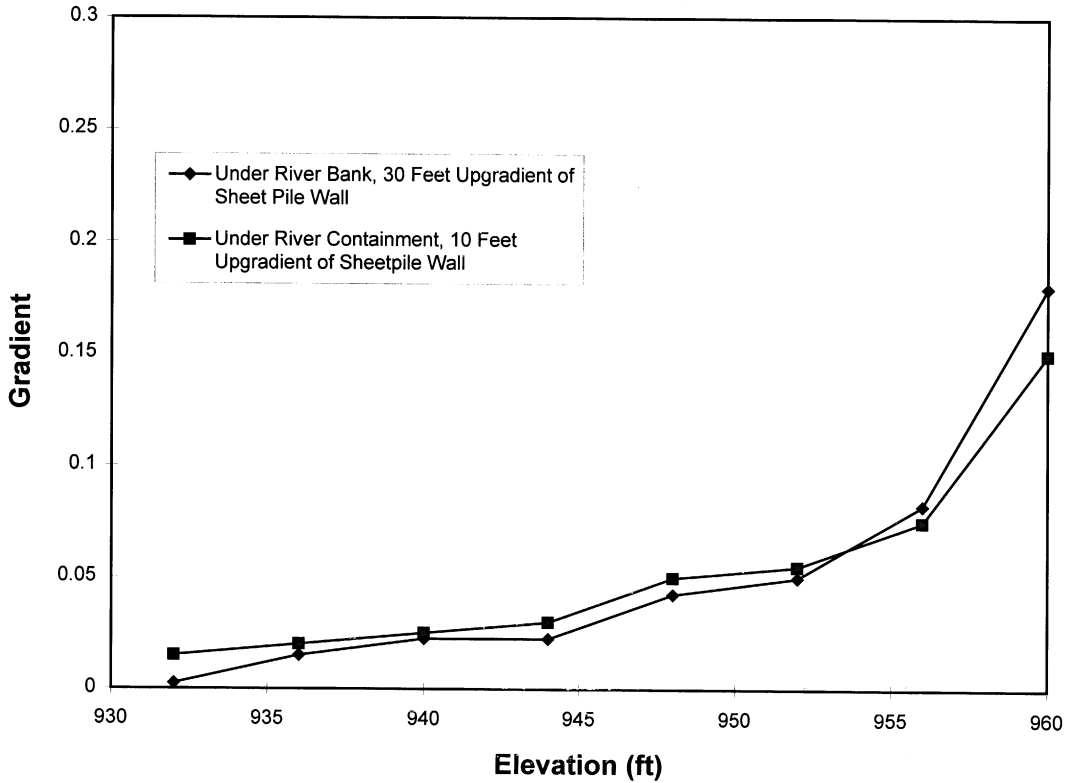
Blasland, Bouck & Lee, Inc. – Syracuse,
Project: 1/2 Mile Reach Hous57
Description: Xsect 930'/968' Dewat
7 Jan 99

Visual MODFLOW v.2.11, (c) 1995
Waterloo Hydrogeologic Software
NC: 3 NR: 200 NL: 24
Current Column: 2

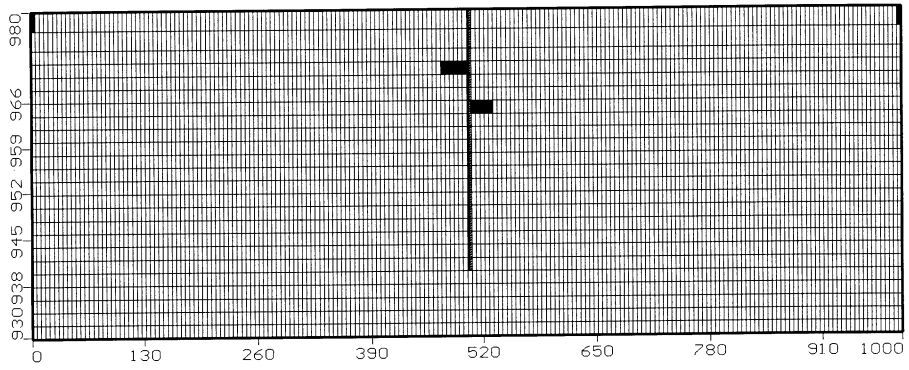
DRAFT

Vertical Gradients

K=60 ft/d, Sheet Pile @ 930 feet, Dewatering Elevation @ 968 feet



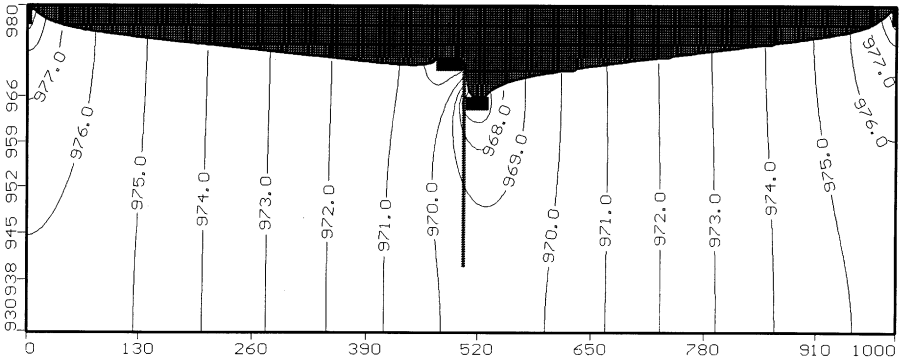
GRAD57.XLS



Blasland, Bouck & Lee, Inc. – Syracuse,
Project: 1/2 Mile Reach Hous58
Description: Xsect – Wall & Cst Heads
7 Jan 99

Visual MODFLOW v.2.11, (c) 1995
Waterloo Hydrogeologic Software
NC: 3 NR: 200 NL: 24
Current Column: 2

DRAFT



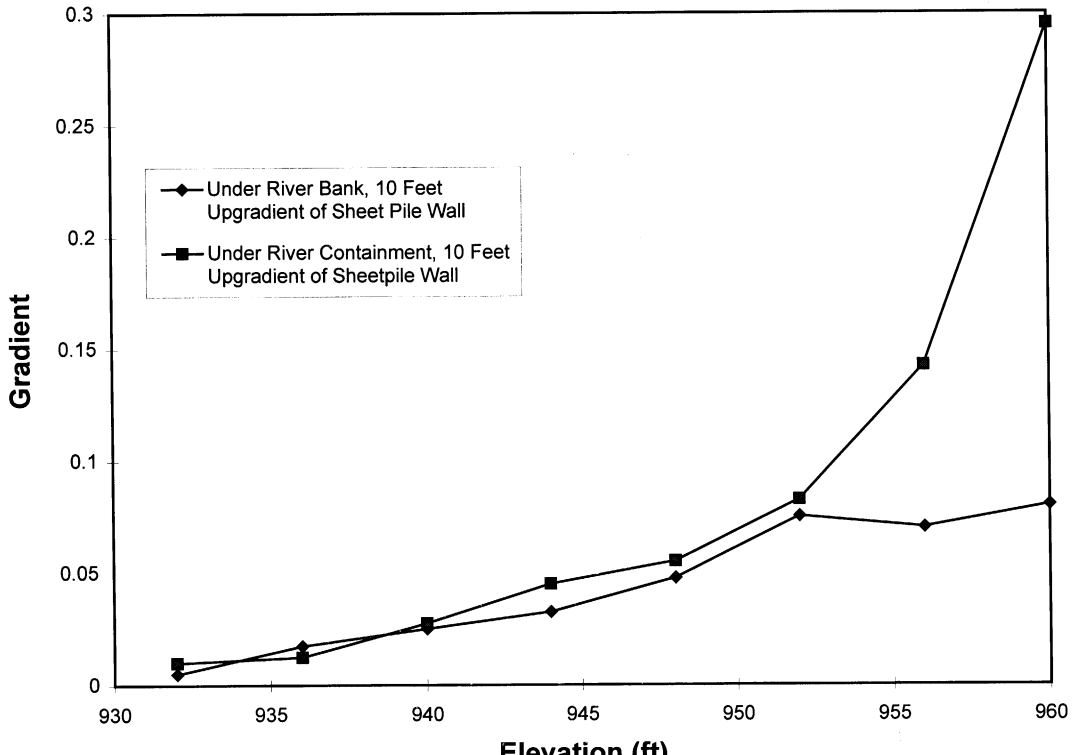
Blasland, Bouck & Lee, Inc. – Syracuse,
Project: 1/2 Mile Reach Hous58
Description: Xsect 940'/966' dewat
7 Jan 99

Visual MODFLOW v.2.11, (c) 1995
Waterloo Hydrogeologic Software
NC: 3 NR: 200 NL: 24
Current Column: 2

DRAFT

Vertical Gradients

K=60 ft/d, Sheet Pile Base @ 940 feet, Dewatering Elevation @ 966 feet



GRAD58.XLS

Appendix G

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Sediment Capping Basis of Design

Appendix G

Sediment Capping Basis of Design

This appendix provides the basis for the design of the sediment capping and armoring system described in Section 7.4.2 of this Work Plan. As described in Section 7.4.2, that system will include a geotextile liner, an isolation layer (the cap), a filter layer (geotextile), a filter protection layer (GeoGrid), and an erosion protection layer (the armor). Section 1 of this appendix presents an evaluation of the effectiveness of the isolation layer in reducing the transport of PCBs from the underlying sediments into the water column. It also includes an evaluation of the effectiveness of the isolation layer in minimizing the transport of dissolved constituents deriving from dense non-aqueous-phase liquid (DNAPL), if encountered in the sediments, from the underlying sediments into the water column. Section 2 of this appendix describes the basis for the proposed armoring component of the system to prevent scour and erosion of the underlying sediments. Included in these sections are discussions of the assumptions, calculations, and results of the evaluations for the upper ½-Mile Reach of the Housatonic River. Section 3 of this Appendix describes the purpose of the geotextile and GeoGrid, and specifies the materials to be used.

1.0 Preliminary Evaluation of Isolation Layer Configuration

In order to assess the effectiveness of a given isolation layer, it is necessary to first establish a "baseline" condition as a reference for comparison to subsequent evaluation results. Using a number of assumptions regarding the concentration of PCBs, their physiochemical properties, and a number of site-specific and general sediment characteristics, the theoretical transport of PCBs from the sediment into the water column was estimated. Then, an estimate of PCB transport through the isolation layer was performed.

The assumptions and input variables used to model "baseline" conditions at the site were intentionally selected to be highly conservative and not necessarily reflective of actual on-site conditions, in order to ensure the protectiveness of the isolation layer. As such, the estimate of PCB transport rates from the sediments under "baseline" conditions is theoretical and conservative, not an estimate of actual PCB transport. Similarly, the calculated PCB transport rates through the isolation layer are conservative. For these reasons, use of these calculations in the overall evaluation of the Housatonic River is limited to relative comparisons within the context of this evaluation. This section contains the following subsections:

1.1 Defining of "Baseline" Site Conditions

1.2 Potential Isolation Layer Configurations

1.3 Estimates of Sediment Porewater PCB Concentrations

1.4 Estimates of PCB Transport Under "Baseline" Conditions

1.5 Estimated PCB Transport by Advection/Dispersion Through Isolation Layer

1.6 Effects of Altering Sediment or Isolation Layer Parameters

1.7 Potential Isolation Layer Configurations for DNAPL, if encountered

In addition, a number of figures are presented to support the narrative.

1.1 Defining of "Baseline" Site Conditions

As part of the evaluation of sediment isolation layer configurations for the Housatonic River, "baseline" conditions were considered. These conditions were utilized to identify the rate of PCB migration from sediment to the water column solely for purposes of the evaluation and comparisons in this appendix. For Housatonic River sediment in the ½-Mile Reach , these "baseline" conditions are a total organic carbon (TOC) concentration of 0.5 percent (a representative value based on USEPA data collected in 1998), along with a conservative average PCB concentration of 20 ppm as Aroclor 1260. An average groundwater seepage velocity of 3.3 cm per day was used for the isolation layer evaluations based upon groundwater flow modeling of the ½-Mile Reach .

1.2 Potential Isolation Layer Configurations

The effectiveness of several isolation layers in reducing PCB migration from the sediments to the water column was evaluated to provide a means for comparisons between various configurations and existing conditions. Based on this evaluation and discussions with the Agencies, the selected parameters associated with the isolation layer presented here included a 6- and 12-inch silty sand layer with TOC content of 0.5 percent. The effectiveness of the 12-inch silty sand layer in reducing PCB migration from the sediments to the water column is evaluated in the text which follows.

1.3 Estimates of Sediment Porewater PCB Concentrations

The theoretical PCB concentration in sediment porewater consists of two phases: a freely dissolved phase and a dissolved organic carbon (DOC)-sorbed phase. The dissolved phase equilibrium PCB concentration in porewater is described by the partitioning equation:

$C_{DIS} = C_{SED}/(f_{oc} \times K_{oc}) = 0.00149$ mg/R= 1.49 Fg/R

where:

C_{DIS} = PCB concentration in porewater (mg/R)

C_{SED} = PCB concentration in the sediment (mg/kg) = 20 mg/kg

f_{oc} = fraction of organic carbon in the sediment (gm/gm) = 0.005

K_{oc} = organic carbon partitioning coefficient for Aroclor 1260 (R/kg) = $10^{6.43}$

The equilibrium concentration of PCBs sorbed to DOC in porewater can be described by the partitioning equation:

$C_{DOC} = (M_{DOC} \times K_{DOC}) \times [C_{SED}/(f_{oc} \times K_{oc})] = (M_{DOC} \times K_{DOC}) \times C_{DIS}$

where:

C_{DOC} = Concentration of PCB sorbed to dissolved organic carbon (mg/R)

M_{DOC} = Concentration of DOC in porewater (mg/R)

K_{DOC} = Dissolved organic carbon partitioning coefficient (R/kg)

Using the assumptions that

$K_{DOC} = 0.1 \times K_{oc} = 10^{5.43}$ R/kg

and M_{DOC} = 10 mg/R

The total porewater PCB concentration (C_{pw}) is then described by:

$C_{pw} = C_{DIS} + C_{DOC}$

where:

C_{DOC} = (10x10^{-6})x10$^{5.43}$x0.00149 = 4.01 Fg/R

For the conditions present in the half Mile Reach :

C_{pw} = 1.49 + 4.01 = 5.5 Fg/R

1.4 Theoretical PCB Transport Under "Baseline" Conditions

As previously discussed, to assess the effectiveness of the isolation layer, it is necessary to establish a "baseline" condition of PCB flux from the sediments to the water column. As also noted above, this estimate has been made on a theoretical basis, utilizing the hypothetical and conservative assumptions described above. As such, the estimate should not be considered to represent actual PCB flux, but should be used only for comparison to the flux after installation of the isolation layer. To make this theoretical estimate of "baseline" PCB flux, two methods were used. First, from previous investigations on the Housatonic River, a diffusive flux sediment/water exchange coefficient *(K_f)* of 0.019 m/day was estimated. This estimate was based on average sediment PCB and TOC concentrations, river bed surface area, and baseflow water column PCB concentrations. Note: Neither of these estimates includes PCBs that may be introduced into the water column by physical resuspension of sediments. Second, an advective flux based groundwater seepage velocity and equilibrium pore water concentration was calculated.

The diffuse flux from existing, unarmored sediments is determined by the equation:

$$Flux = K_f A C_{pw}$$

For Housatonic River sediment with 0.5 percent TOC and an average PCB concentration of 20 ppm:

$$Flux = (0.019 \text{ m/day})(5.5 \times 10^{-6} \text{ gm/R})(1000 \text{ R/m}^3)$$
$$= 0.104 \text{ mg/m}^2\text{/day}$$
$$= 38 \text{ mg/m}^2\text{/yr}$$

To estimate a maximum advective flux, the equilibrium porewater PCB concentration computed earlier was assumed for groundwater passing through the sediment. The advective steady-state flux is therefore computed as:

$$Flux = V \times A \times C_{pw}$$

where V = groundwater seepage velocity (3.3 cm/day)

A = $1m^2$

C_{pw} = porewater PCB concentration (5.5 $\mu g/\ell$)

The advective flux for the ½ Mile Reach of the Housatonic River sediments is 0.18 $mg/m^2/day$ or 66 $mg/m^2/yr$.

1.5 Estimated PCB Transport by Advection Through Isolation Layer

If groundwater movement through the sediment and isolation layer occurs, advective transport processes will control the steady-state rate of PCB movement through the isolation layer. The rate limiting mechanism for PCB movement is the rate at which PCBs are transferred from the sediments to the isolation layer. This rate is, therefore, also the maximum flux at the water/isolation layer interface if steady state is assumed. As noted earlier the maximum advective flux is 66 $mg/m^2/yr$.

To estimate the breakthrough and steady-state times associated with advective transport of PCB through the isolation layer, a one-dimensional advective/dispersive equation, incorporating a retardation factor to account for adsorption of PCB, was used. The equation takes the form:

$$\frac{\partial C}{\partial t} = \frac{D_H}{R}\frac{\partial^2 C}{\partial x^2} - \frac{V}{R}\frac{\partial C}{\partial x}$$

The solution in this case becomes (Bedient and others, 1985; Fetter, 1993):

$$C(x,t) = \frac{C_o}{2}\left[erfc\left(\frac{Rx - Vt}{2\sqrt{RD_H t}}\right) + \exp\left(\frac{Vx}{D_H}\right) erfc\left(\frac{Rx + Vt}{2\sqrt{RD_H t}}\right)\right]$$

The second term of the equation can be neglected where advective processes are the predominant mechanism of transport without introduction of measurable error (Ogata and Bank, 1961). When x is set to the isolation layer thickness *(L)*, the equation reduces to:

$$\frac{C}{C_o} = \frac{1}{2} erfc\left(\frac{RL - Vt}{2\sqrt{RD_H t}}\right)$$

In the presence of dissolved organic carbon, which may facilitate the transport of PCBs, the retardation coefficient (R) can be estimated as (Magee and others, 1991):

$$R = 1 + \frac{(K_p \rho_b / n)}{(1 + K_{DOC} M_{DOC})}$$

where C = concentration at the sediment/water interface at time t

L = isolation layer thickness in meters (= 0.3m)

V = groundwater velocity (= 0.033 m/day)

t = time in seconds

D_H = hydrodynamic dispersion coefficient = 3×10^{-10} m^2/s

n = porosity of isolation layer material (= 0.3)

ρ_b = bulk density (= 1.5 gm/cm^3)

K_p = partitioning coefficient for isolation layer material = $K_{oc} \times f_{oc}$

f_{oc} = fraction organic carbon in the isolation layer (= 0.005)

The value of the complementary error function was approximated using the first eight terms of the infinite series:

$$erfc(x) = 1 - \frac{2}{\sqrt{\pi}}\left(x - \frac{x^3}{3} + \frac{x^5}{5*2!} - \frac{x^7}{7*3!} + \ldots\right)$$

At low porewater velocities, the value of the hydrodynamic dispersion coefficient approaches the transient molecular diffusion coefficient. Both coefficients are affected by the retardation factor. The transient molecular diffusion coefficient (D_t) was approximately 3×10^{-13} m^2/sec. A more conservative value of 1×10^{-10} m^2/sec (Tchobanoglous and

Schroeder, 1987) has been used for the hydrodynamic dispersion coefficient, D_H. Times to breakthrough (5 percent of maximum concentration) and steady state (95 percent of maximum concentration) for each configuration assumption for the 12-inch isolation layer are 125 and 145 years, respectively. Figure G-1 presents the breakthrough curve for the 12-inch silty sand layer with 0.5 percent TOC concentrations. These times are independent of sediment PCB concentration, as long as dissolved phase advection is the transport mechanism.

1.6 Effects of Altering Sediment or Isolation Layer Parameters

The computed results, while indicative of general patterns in the ability of the isolation layer to control the migration of PCB, are specific to the sediment and/or isolation layer conditions assumed. The effects of altering the assumed conditions are, in general, simple ratios between the initial and revised value for any single parameter. Below is a brief description of the effects of various parameters on the predicted effectiveness of the isolation layer.

Sediment properties are primarily responsible for determining the sediment porewater PCB concentration. Sediment characteristics which may affect the effectiveness of an isolation layer include:

- PCB Concentration - Equilibrium porewater concentration increases with increasing sediment PCB concentration, barring solubility limits.

- TOC - For low levels of sediment TOC, the freely dissolved equilibrium porewater PCB concentration increases with decreasing sediment TOC, until a point where the concentration is limited by solubility. For higher TOC concentrations, the DOC-associated PCB phase will control the PCB porewater concentration, with only minor changes in PCB concentration over a large range in sediment TOC.

- The total mass of PCB present, or thickness of contaminated sediments, is not of primary importance in the calculations. The mass of PCB may determine if, given the long periods to achieve steady-state conditions, there is significant depletion of the initial PCB mass due to migration from the sediments.

For the isolation layer, the two major design parameters are the organic carbon content and the layer thickness.

- Organic Carbon Content - The organic carbon content of the isolation layer material increases the ability to sorb PCB, providing a greater retardation of PCB migration through the isolation layer. Both t_b and t_{ss} are approximately proportional to isolation layer material f_{oc}, while the steady-state flux is independent of f_{oc}.

- Isolation Layer Thickness - As isolation layer thickness increases, the times for migration through the isolation layer also increases. For advective transport, breakthrough and steady state, times are proportional to *L*, but the steady-state flux is virtually independent of thickness.

- Particle Surface Area - For very small diameter particles (clays) or highly internally fractured material (activated carbons), the total surface area may play a more significant role in determining the sorptive capacity of the isolation layer. In these cases, the *K* for the specific material replace the term f_{oc} x K_{oc}.

1.7 Potential Isolation Layer Configuration for DNAPL, If Encountered

Should DNAPL be encountered during sediment removal, the removal shall continue to a depth of no more than 4 feet below final stream bed grade, as described in Section 7.4.4 of this Work Plan. In areas of the River (if any) where DNAPL is still present after implementation of any DNAPL removal actions, a cap and armor system similar to that previously described will be placed over such areas, with a 1- to 3-foot thick cap plus the 1-foot armor layer. As noted earlier, cap breakthrough is proportional to cap thickness. A 3-foot cap with f_{oc} = 0.005 would have a computed breakthrough time of about 400 years. Therefore, the maximum advective flux of 95 mg/m^2/yr still represents a conservative estimate.

2.0 Housatonic River Armor Layer Computational Study

2.1 Design of the Upstream Reach Erosion Control Layer

The computer software *RIPRAP Design System* (WEST, 1996) was used to design the erosion control protection layer (i.e., determine material size) for the upper ½-Mile Reach of the Housatonic River. RIPRAP incorporates criteria from seven different design methods including the USACE engineering and design manual Hydraulic Design of Flood Control Channels (1991). Site specific input data used in the calculations were obtained from the HEC-2 model developed for the 100-year storm event. The equation for determination of stone size is as follows:

$$D_{30}=S_f C_s C_V C_T d[[\gamma_w/(\gamma_s-\gamma_w)]]^{1/2}[V/(\sqrt{K_1 g d})]]^{2.5}$$

Where:

D_{30} = Armor size of which 30 percent is finer by weight

S_f = Safety factor = Increased to 1.25 to account for freeze-thaw heaving

C_s = Stability coefficient for incipient failure = Increased to 0.36 for rounded rock

C_v = Vertical velocity distribution coefficient

= 1.0 for straight channels and inside of bends (R/W is large for a straight channel section - use R/W = 50)

where: R = the bend radius in feet (500 ft)

W = the width of the river in feet (60 ft)

C_T = Thickness coefficient = 1.0

d = Local depth of flow = various depths from the HEC-2 model

γ_s = Unit weight of the selected armoring rock = 155 lbs/ft^3

γ_w = Unit weight of water = 62.4 lbs/ft^3

V = Local average velocity V_{ss}

= $V_{avg.}[1.74 - 0.52\log(R/W)] = V_{avg.}[1.74 - 0.52\log(8)] = 1.27\ V_{avg.}$ for outside of the bend.

g = Gravitational constant = 32.2 ft/sec^2

K_1 = side slope correction factor = for armoring which lay nearly flat (0.9), for straight section (16 degree slope), and 0.8 for the bend (23 degree slope)

Velocities and depth for various high flow events were determined using the HEC-2 model for the half-Mile Reach. Two different velocities and depths were used in sizing the armor material. For velocities, the average and the maximum for non-bridge sections were used; for depths, the average and the minimum for non-bridge sections were used. The analysis was also run for both straight sections and the outside bank of the bend (using only sections from the bend). Results are shown in Figure G-2.

Maximum armor size was required for the approximate 25 to 30-year event (6,000 cfs.). As flood events became greater than 6,000 cfs the velocity became limited and depths increased to offset velocity, producing a lower shear stress.

2.2 Armor Size

Armoring Areas - Armor Stone Sizing

In the ½-Mile Reach of the Housatonic River, the average velocities and water depth were computed for each of approximately 60 cross-sections in the HEC-2 model for various high flow conditions from approximately 3000 cfs to 7000 cfs. For straight, non-bridged sections the maximum velocity and minimum water depth were used in equation 3-3 from EM 1110-2-1601. These sections are consistent with the locations in which capping and armoring have been proposed. Results are shown in Figure G-2. The maximum computed D_{30} for these straight sections was 0.34 feet for a flow of approximately 6000 cfs. In accordance with Table 3-1 of EM 1110-2-1601, this would be consistent with a rip-rap gradation having a D_{100} of 9 inches, and a minimum D_{30} of 0.37 feet.

The suggested gradation specifications for the armor stone layer are:

W_{100} (max)	60 lb.
W_{85}	20-30 lb.
W_{50}	10-15 lb.
W_{15}	2-5 lb.

For the outside portion of the existing bend located at the approximate midpoint between Newell and Lyman Street bridges, equation 3-3 was again used with the corresponding maximum velocities and minimum water depths determined from HEC-2 modeling (other coefficients adjusted for conditions in a turn). Results are shown in Figure G-2. The maximum computed D_{30} for these river bend sections was 0.51 ft., consistant with a rip-rap gradation having a D_{100} of 12 inches and D_{30} minimum of 0.48 ft.

The suggested gradation specifications for the armor stone in this area are:

W_{100} (max)	90 lb.
W_{85}	30-45 lb.
W_{50}	15-20 lb.
W_{15}	4-6 lb.

3.0 Filter and Filter-Protection Layer Specifications

Following placement of the isolation layer, a geotextile liner will be placed to act as a filter layer, inhibiting the potential for erosion of the silty sand isolation layer up through the armor layer. Tear resistance during the subsequent placement of the armor protection layer will be provided through placement of GeoGrid on the geotextile.

As provided in Figure 7-2 of the Work Plan, geotextiles will be a woven monofilament geotextile that meets the following requirements:

Property	Test Method	Requirement (MARV)
Grab Strength	ASTM D 4632	> 1100 N
Tear Strength	ASTM D 4533	> 250 N
Puncture Strength	ASTM D 4833	> 400 N
Burst Strength	ASTM D 3786	> 2700 N
Permittivity	ASTM D 4491	> 0.2 sec-1
Apparent Opening Size	ASTM D 4751	< 0.25 mm

The GeoGrid will be Stratagrid 100 or Miragrid 2xT, or an approved equal.

References

Bedient, P.B., Borden, R.C., and Leib, D.I., "Basic Concepts for Ground Water Transport Modeling", in Ward, C.H., Giger, W., and McCarty, P.L., ed. *Ground Water Quality*, John Wiley & Sons, New York, p. 512-531, 1985.

Brown S.A. and Clyde E.S., Design of Riprap Revetment, Hydraulic Engineering Circular No. 11, U.S. Department of Transportation, Federal Highway Admin., Pub. #FHWA-1P-89-016, March 1989.

Ogata, A. and Bank, R.B., "A Solution to the Differential Equation of Longitudinal Dispersion in Porous Media", *US Geological Survey Professional Paper 411-A*, Washington, DC 1961.

Reible, D.D., Valsarog, K.T., and Thibodeaux, L.J., "Chemodynamic Models for Transport of Contaminants from Sediment Beds", in Hutzinger O. (ed) *The Handbook of Environmental Chemistry*, Vol. 2, Part F, Springer-Verlag, Berlin (1991).

Tchobanoglous G., and Schroeder, E.O., *Water Quality - Characteristics, Modeling, Modification*, Addison-Wesley Publishing, Menlo Park, CA, (1987).

Thibodeaux, L.J., Valsaraj, K.T., and Reible, D.D., Capping Contaminated Sediments - The Theoretical Basis and Laboratory Evidence for Chemical Containment, *Proceedings of the 2nd International Conference on Dredging and Dredged Material Placement*, pp. 1001-1007, ASCE, Lake Buena Vista, FL, 1994.

Thoma, G.J., Kaulermos, A.C., Valsaraj, K.T., Reible, D.D., and Thibodeaux, L.J., "The Effects of Pore-Water Colloids on the Transport of Hydrophobic Organic Compounds from Bed Sediments", in Baker, R.A. (ed), *Organic Substances and Sediments in Water*, Vol. 1, *Humics and Soils*, p. 231-250, 1991.

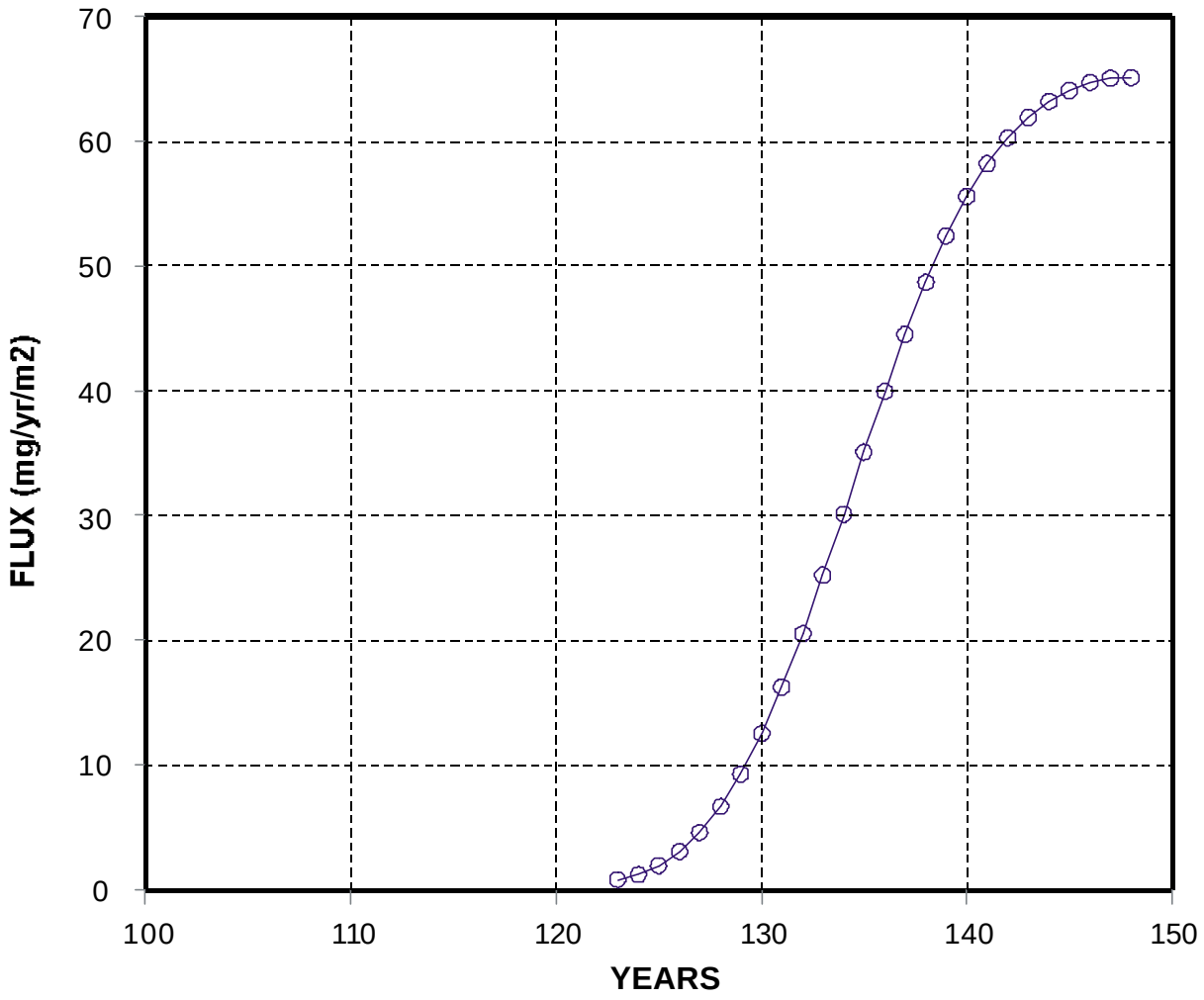
Thoma, G.J., Reible, D.D., Valsaraj, K.T., and Thibodeaux, L.J., "Efficiency of Capping Contaminated Sediments in Situ. 2. Mathematics of Diffusion - Adsorption in the Capping Layer", *Environmental Science and Technology*, Vol. 27, p. 2412-2419, (1993).

USACE, Hydraulic Design of Flood Control Channels, EM 1110-2-1601, July 1, 1991 (including June 1994 revisions).

USEPA, *Attenuation of Water Soluble Polychlorinated Biphenyls by Earth Materials*, EPA-600/2-80-027, May 1980.

Valsaraj, K.T., Thoma, G.J., Porter, C.L., Reible, D.D., and Thibodeaux, L.J., "Transport of Dissolved Organic Carbon-Derived Natural Colloids from Bed Sediments to Overlying Water: Laboratory Simulation," *Proceedings of First International Specialized Conference on Contaminated Sediments: Historical Records. Environmental Impact and Remediation*, Milwaukee, Wisconsin, p. 165-174 (1993).

Wang, X.Q., Thibodeaux, L.J., Valsaraj, K.T., and Reible, D.D., "Efficiency of Capping Contaminated Bed Sediments in Situ. 1. Laboratory-Scale Experiments on Diffusion-Adsorption in the Capping Layer", *Environmental Science and Technology*, Vol. 25, p. 1578-1584, (1991).



GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

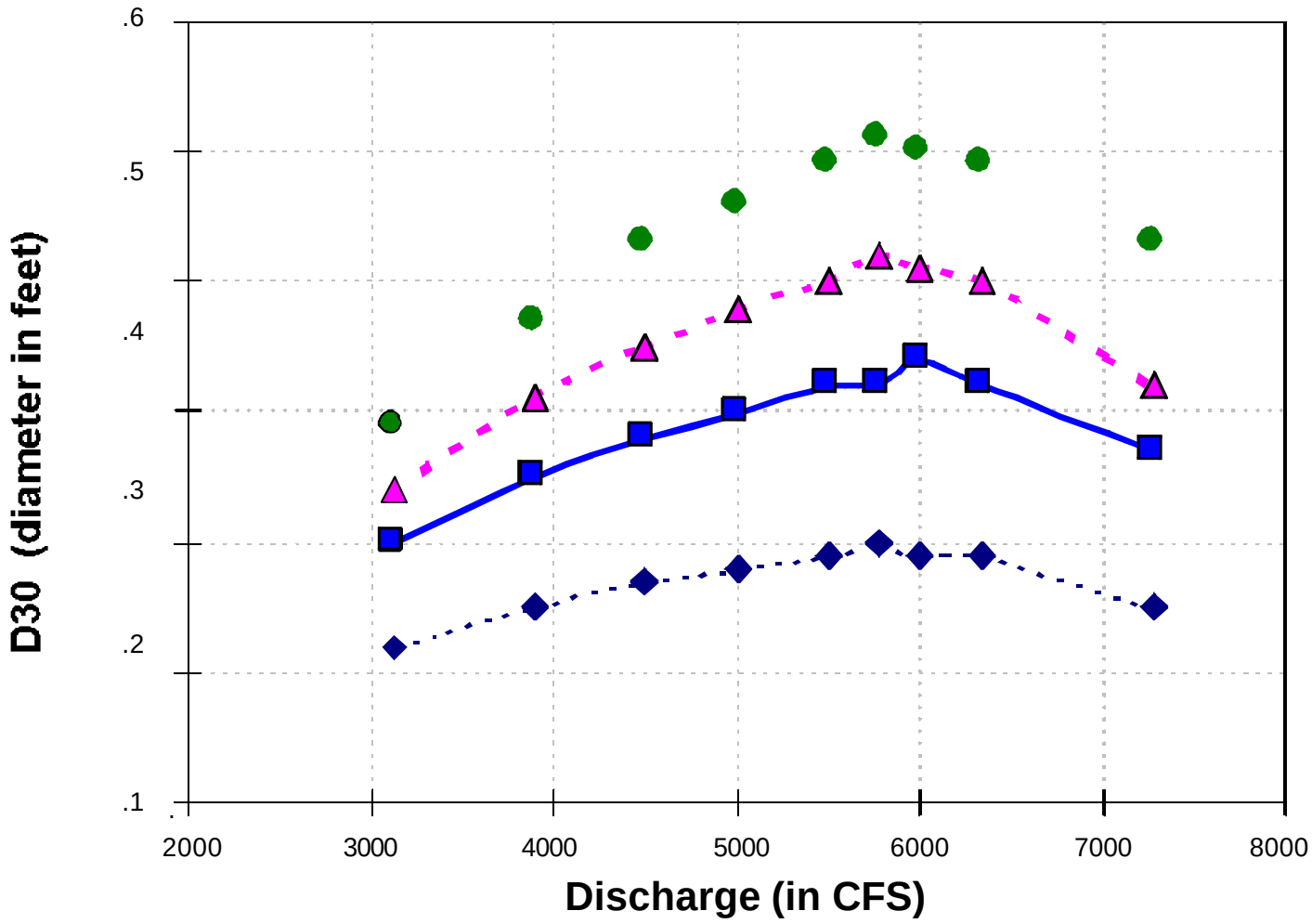
REMOVAL ACTION WORK PLAN -
UPPER ½-MILE REACH OFHOUSATONIC RIVER

BREAKTHROUGH CURVE FOR 12-INCH CAP

BBL BLASLAND, BOUCK & LEE, INC
engineers & scientists

FIGURE
G-1

06/99 SYR-D54-DJH
20197030/20197g22.CDR



GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN -
UPPER ½-MILE REACH OFHOUSATONIC RIVER

ARMOR SIZE REQUIREMENTS

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE G-2

01/99 SYR-D54-DJH
20197030/20197g16.CDR

Appendix H

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Correspondence Related to the November/ December 1998 Building 68 Bank Soil Removal Activities

Environmental Programs
General Electric Company
[illegible] Avenue, Pittsfield, MA 01201

December 15, 1998

Mr. Dean Tagliaferro
Site Evaluation and Response Section
U.S. Environmental Protection Agency
One Congress Street
Boston, MA 02203

Ms. J. Lyn Cutler
Section Chief, Special Projects
Bureau of Waste Site Cleanup
Department of Environmental Protection
Springfield, MA 01103

Re: Removal Action - Building 68 Area
EPA Region I CERCLA Docket #I-97-1003 / DEP File #1-1047P
Additional Bank Soil Removal Activities

Dear Mr. Tagliaferro and Ms. Cutler:

The purpose of this letter is to document the additional bank soil removal that is in progress as part of the Building 68 Area Removal Action. As you know, an approximate 170-foot long section of riverbank was excavated to the water table and restored in 1997. As we have discussed, certain bank soils located adjacent to the Building 68 sediment removal area would likely be subject to removal as part of the Upper One-Half Mile Project in 1999 or 2000. In order to complete the bank soil removal work in the Building 68 Area at this time and to assist in the restoration of these banks, GE has offered to remove select bank soils to depths of one to three feet.

The additional Building 68 Area bank soil proposed for removal/disposal that we have discussed and agreed upon with Dean Tagliaferro is depicted in Figure 1. The excavated bank soil will be transported to a TSCA-permitted landfill for disposal. Restoration of this removal area will consist of placement of a geotextile, followed by clean backfill and a six-inch topsoil layer. The bank will then be seeded and covered with an erosion mat. Final restoration activities will be completed in 1999 consistent with the approved restoration plan for the Upper One-Half Mile Reach.

We are currently performing the additional excavation activities as depicted on the figure. Please call if you have any questions or require additional information.

Yours truly,

Andrew T. Silfer, P.E.
Manager of Remediation

cc: R. Bell, DEP*
J.R. Bieke, Esquire, Shea & Gardner*
State Representative D. Bosley
R.A. Child, Esquire, DEP*
Mayor G.S. Doyle
C.G. Fredette, CT DEP*
T.E, Hickey, Jr., Chair, Pittsfield City Council*
State Representative C.J. Hodgkins
State Representative S.P. Kelly
State Representative P.J. Larkin
D.J. Luckerman, Esquire, EPA
J.H. Maxymillian, Maxymillian Technologies*
D. McIntyre, EPA*
State Senator A.F. Nuciforo
B. Olson, EPA*
M. Otis, USACOE*
Pittsfield Health Department*
Pittsfield Conservation Commission*
A.J. Thomas, Esquire, GE*
A. Weinberg, DEP*
Housatonic River Initiative
Public Information Repositories ECL I-P-IV(A)(1)*

*enclosure

Appendix I

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Caged Bivalve Bioaccumulation Study Procedures

Appendix I

Caged Bivalve Bioaccumulation Study Procedures

The following in-situ caged bivalve study protocol [adapted from the methods presented in The Draft Standard Guide for Conducting Field Bioassays with Marine, Estuarine and Freshwater Bivalves (Salazar and Salazar, 1997)] provides the general sampling procedures to be used to complete the caged bivalve trend monitoring task as part of the Housatonic River biological monitoring program. Caged bivalve monitoring will employ in-River exposure vessels (e.g., cages) and native populations of freshwater mussels to monitor PCB bioavailability in the Housatonic River. Study procedures are presented below.

I. Equipment

The mussel cages will be constructed as a modified version of that described in Salazar and Salazar, (1997), an`d USEPA, (1995a). Specifically, a two-cage array of Gee Model 40K holding cages will be suspended in the water column approximately half way up from the River bottom. These galvanized steel mesh cages will be employed as flow-through chambers that allow food particles to flow into the cage while retaining the study population of mussels without injury. The following materials will be available for use, as required, during the Housatonic River caged bivalve bioaccumulation study:

- Health and Safety equipment (as required by the Health and Safety Plan);
- River maps;
- 5' sections of steel rebar and clamps;
- Gee Model 40K holding cages;
- Appropriate numbers of native mussels;
- Transport container (live well, cooler) and ice;
- Clam rake;
- Hammer;

- C Depth gauge;
- C Thermometer;
- C Appropriate packaging materials and forms;
- C Field notebook;
- C Waterproof labels; and
- C Preservative (formaldehyde or alcohol).

II. Sampling Procedures

General procedures that will be followed to deploy and sample the mussel cages include the following

A. Don appropriate health and safety equipment (e.g., personal flotation device).

B. Collect (by hand) an appropriate number of native mussels *(Elliptio Complenata)* from a Housatonic River basin background location (e.g., Connecticut River).

C. Select 10 individuals from the study population and process (following steps in Section III. below) into two field blank screening samples for pre-study analysis of PCBs and lipids to determine background concentrations.

D. Select a second sample of 3 to 5 individuals and preserve following standard preservation techniques. Retain for laboratory identification/confirmation of species type.

E. At the appropriate locations, secure mussel cages at mid-depth in the water column with steel rebar, and place a minimum of 20 mussels in each cage, label each cage with cage number and location, (see Figure I-1 for schematic of in-situ shallow water caged mussel setup).

F. Deploy two two-cage mussel arrays at each of the three study locations (four cages per location). Position arrays with a north and south River bank orientation.

G. Secure mussel arrays on the River bottom with steel rebar.

H. Determine the exact location of each array in the field and record location in the field notebook. Where possible, the cages will be at least one meter off of the river bottom and one foot below

the water surface, and located in a position where fluctuations in the water level will not be expected to expose the cages during low flow.

I. Sample mussels after an appropriate exposure period, removing the setups from the water after the final sampling event.

J. As mussel samples are collected, record the following in the field notebook:

- date and time of sampling;
- cage number and location;
- contact duration;
- sampling personnel;
- river water temperature;
- water depth and cage location in the water column; and
- notes on mussel mortality and condition.

K. Retain sufficient mass of mussels for required chemical analyses (e.g., 5 to 10 individuals or a minimum of 10 grams of tissue per sample).

L. During and after collection, hold samples on ice in an insulated cooler until processing for shipment to the analytical laboratory.

M. Repeat steps I through L until appropriate quantities of mussels are obtained from each array included in the sampling event.

III. Sample Processing and Packaging

Procedures for field processing, wrapping ,and labeling biota samples are listed below:

A. During and after field collection, all mussel samples will be held on ice in an insulated cooler.

B. All mussel samples will remain whole and unshucked.

C. Number each composite sample and record the following information for each sample in the field notebook:

- weight (total weight of unshucked composite sample);
- number of individuals comprising sample;
- species;
- sample location; and
- sample identification number.

D. Rinse samples in distilled water, then wrap in aluminum foil, followed by freezer paper, and tape securely so that the package does not open during shipment.

IV. Shipping

For shipment to the analytical laboratory, all mussel samples will be packaged in accordance with the following procedures:

A. Place sample packages in an insulated cooler lined with two bags of ice on the bottom of the cooler. Fill cooler with biota samples, leaving sufficient room for two bags of ice on top of the samples. If needed, fill remaining space in cooler with additional ice.

B. Fill out appropriate chain-of-custody forms with instructions for sample processing and chemical analyses. Put chain-of-custody forms in a sealable plastic bag and tape to the inside of the cooler lid.

C. Close cooler and seal with shipping tape; place a signed custody seal label across closure at front of cooler.

D. Affix airbill (if appropriate) with shipper's and consignee's addresses to top of cooler.

E. Ship samples to arrive at the laboratory within 24 hours of sample collection. In accordance with USEPA guidance, preservation with ice as described above is appropriate for mussel samples when the maximum storage/shipping time from collection to delivery at the processing laboratory is less than 24 hours (USEPA, 1995b).

V. Equipment Decontamination

Reusable equipment which comes into contact with biota tissues will be cleaned prior to use and between samples using the following procedure:

A. Potable water rinse, and wash with a detergent solution (i.e., Alconox).

B. Potable water rinse.

Solid materials (e.g., disposable gloves and other disposable equipment) from sampling activities will be placed in plastic bags. These bags will be transferred into larger containers and disposed of properly.

VI. Chain-of-Custody Procedures

All samples will be collected and handled in accordance with the chain-of-custody procedures summarized below:

A. Prior to relinquishing samples for packaging and shipment, one member of the sampling team will record relevant information on a chain-of-custody form.

B. The samples will be packaged for shipment as described in the sections on "Sample Processing and Packaging" and "Shipping."

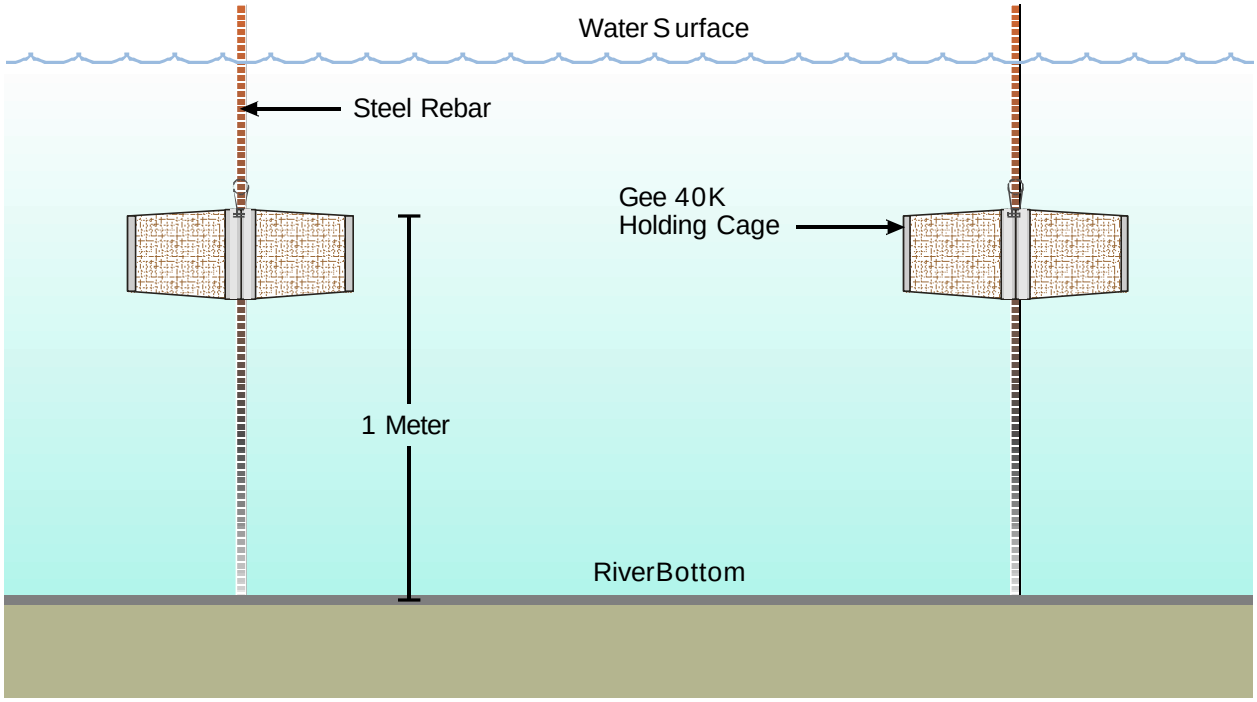
C. If samples are stored temporarily prior to shipment, they will be kept cold and placed in a secured storage area. Coolers will be sealed and custody seals affixed just prior to shipment.

References:

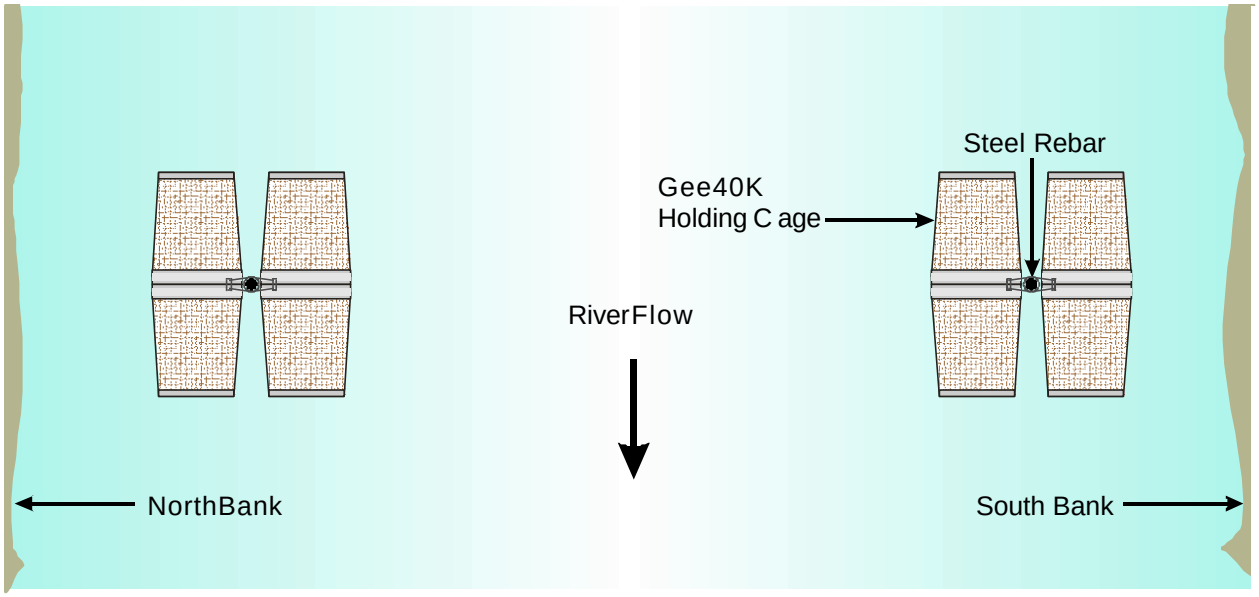
Salazar, M. And S. Salazar. DRAFT Guide for Conducting Field Bioassays with Marine, Estuarine & Freshwater Bivalves. EVS Consultants. April 13 1997.

United States Environmental Protection Agency (USEPA). AED Laboratory Operating Procedure Caged Bivalve Deployment. Revision I. 1995a.

USEPA. Guidance for Assessing Chemical Contaminant Data for use in Fish Advisories Volume 1 Fish Sampling and Analysis Second Edition, Office of Water, EPA 823-R-95-007. September 1995b.



Elevation



NOT-TO-SCALE

Plan View

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION WORK PLAN -
UPPER ½-MILE REACH OFHOUSATONIC RIVER

CAGED BIVALVE IN-SITU EXPOSURE VESSELSHALLOWWATERSET

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE J-1

01/99 SYR-D54-DJH
20197030/20197f04.CDR

Appendix J

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Scope of Work for Ambient Air PCB and Particulate Monitoring

DRAFT
SCOPE OF WORK
for
Ambient Air PCB & Particulate Monitoring
During Remedial Action of the
Housatonic River
Pittsfield, Massachusetts

General Electric Company
Pittsfield, Massachusetts

Prepared by

Berkshire Environmental Consultants, Inc.
152 North Street, Suite 250
Pittsfield, MA 01201

June 1999

TABLE OF CONTENTS

1.0 INTRODUCTION

General Electric Company (GE) proposes to conduct ambient air monitoring for polychlorinated biphenyls (PCBs) and particulate matter during remedial action of the ½ mile reach of the Housatonic River in Pittsfield, Massachusetts. Ambient air monitoring for PCBs and particulate will be conducted during remediation/removal activities along the ½ mile reach.

2.0 SAMPLING OBJECTIVE

The objectives of this sampling programs are two-fold:

1. To obtain valid and representative data on ambient levels of PCBs downwind of remedial action areas during significant remediation activities to insure that the remedial activities are not causing an unacceptable increase in ambient air concentrations of PCB.

2. To obtain valid and representative particulate concentrations during remedial activities to monitor site activity.

3.0 PCB MONITORING PROGRAM

3.1 *High Volume PCB Sampling*

A high volume PCB sampling program will be conducted and will include the following elements:

High-Volume Monitoring Locations	4
Background Sites	1
Co-Located Sites (Field Duplicates)	1
Sampling Time	24 hours per sampling event
Sampling Period	Duration of removal activity
Frequency of Sampling	2 events pre-remediation and once per month thereafter during removal actions*
No. of Blanks Per Event	1
Sampling Method	EPA TO-4
Analytical Method	EPA 608/8088

* Sampling frequency may be increased if particulate monitoring levels exceed threshold values

Ambient air monitoring for PCBs will be conducted during remediation/removal activities along the river. Sampling will be conducted during two 24 hour periods prior to remediation and one day per month during actual removal actions. Sampling will not be conducted during site preparation work or breakdown activities.

The ambient air monitoring frequency for PCB will be increased to bi-weekly in the event that ambient particulate concentrations at any one location consistently exceed the proposed particulate notification level (i.e. 120 $\mu g/m^3$). Consistently exceeding will be defined as greater than 120 $\mu g/m^3$ on three consecutive 10 hour days or 5 days in any two week period. If PCB concentrations are below PCB action levels for two consecutive bi-weekly events, then sampling frequency will revert to monthly.

Monitoring will be conducted at four locations along the Housatonic River. The sampling locations may vary as construction-related activities progress along the ½ mile reach. An additional monitor will be operated at an appropriate location in Pittsfield that is representative of background PCB concentrations.

The specific sampling locations for these monitors will be selected and proposed to USEPA based on the location and nature of the site remediation activity, predominant wind direction, the location of potential receptors, physical obstructions (i.e. trees, buildings), etc., the availability of power, site security, and site accessibility.

The detection limit (DL) for PCB analysis of the high volume samples in this study will be 0.0005 $\mu g/m^3$, in consideration of the following:

Sampling Rate	0.25 - 0.26 m^3/min.
Avg. Sample Volume	370 m^3/PUF
Analytical DL	0.2 μg/PUF
Project DL	0.0005 $\mu g/m^3$

The sampling method for PCBs in the high volume samples will be US EPA Compendium Method TO-4, Method for the Determination of Organochlorine Pesticides and Polychlorinated Biphenyls in Ambient Air. This method employs a modified high volume sampler consisting of a glass fiber filter with a polyurethane foam (PUF) backup absorbent cartridge to sample ambient air at a rate of 200-280 L/minute (0.20 - 0.28 m^3/min). A General Metal Works Model GPS-1 Sampler or equivalent will be used. The filter and cartridge will be placed in clean, sealed containers and returned to the laboratory for analysis.

Method TO-4 cites the U.S. EPA Reference Method for the Determination of Suspended Particulates (TSP) in the Atmosphere (High Volume Method) contained in 40 CFR 50, Appendix B for procedures on equipment calibration. The TSP reference method is also used as a QA guideline for sampling procedures, calculation and data reporting, maintenance, and the assessment of data for accuracy and precision.

The samplers will be monitored at six hour intervals over the 24 hour sampling period. During these six-hour checks, barometric pressure, temperature, flow and magnehelic pressure readings will be taken. When necessary, the air flow will be adjusted to the target flow rate. At the end of the sampling period, the PUF cartridges will be removed from the sampling train. Each PUF cartridge (inside a glass holder) will be wrapped in hexane rinsed aluminum foil. The PUF samples will be labeled, wrapped, packaged in blue ice and sent under chain-of-custody to the contract laboratory for analysis. A three day turnaround from the laboratory on all samples will be requested.

The PCB sampling probe height for all high volume monitors will be approximately 2.0 meters above the ground. This height is adequate to represent the breathing zone and be above the influence of ground activity around the monitor. The location of the samplers will be in conformance, to the extent practical, with the siting requirements for ambient monitors in Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD), U.S. EPA. May, 1987.

Two rounds of high volume ambient air sampling will be conducted prior to any significant remedial activities at the sites. During the remediation work, PCB sampling will be conducted once per month. Samples will be collected on weekdays for 24 hours from approximately 7 am to 7 am during each event.

3.2 *Analytical Procedures*

In the high volume samples, the PCBs will be recovered by Soxhlet extraction with 5% ether in hexane. The extracts will be reduced in volume using Kuderna-Danish (K-D) concentration techniques and subjected to column chromatographic cleanup. The extracts will be analyzed for PCBs using gas chromatography with electron capture detection (GC-ECD) as described in U.S. EPA Method 608. EPA Method 608 - Organochlorine Pesticides and PCBs is a gas chromatographic (GC) method applicable to the determination of certain PCB aroclors and organochlorine pesticides in municipal and industrial waste water discharges.

The samples will be analyzed for the following PCB Aroclors:

PCB-1016	PCB-1221
PCB-1232	PCB-1242
PCB-1248	PCB-1254
PCB-1260	

4.0 PARTICULATE MONITORING

Ambient air monitoring will be conducted during removal and replacement/cover activities to assess particulate matter levels. Real-time ambient particulate monitoring will be performed during all construction-related activities, beginning with the initial phase of construction (sheetpile installation). Such monitoring will be conducted at two stations -- one at an appropriate location downwind of the construction-related activities (which may vary as construction-related activities progress along the ½-mile reach) and another at an appropriate location in Pittsfield that is representative of background particulate concentrations. The specific locations for these stations will be selected and proposed to USEPA, based on the location and nature of the construction activities, predominant wind direction, location of potential receptors, availability of power, site accessibility, site security, and existing ambient air monitoring data

At each station, real-time particulate monitoring will be performed using a MIE data RAM Model DR-2000 real time particulate monitor. Each monitor will be equipped with a temperature conditioning heater and in-line impactor head to monitor and record particulate concentrations with a mean diameter less than 10 micrometers (PM_{10}). Monitoring will be conducted for approximately 10 hours daily, from 7 am to 5 pm, during construction-related activities. Particulate data will be recorded and averaged by the instruments' datalogger for each hour of the day (approximately 10 hours).

Calibrations and maintenance will be conducted at the frequency and in accordance with the procedures recommended by the manufacturer. All calibrations will be recorded.

5.0 QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES

Quality assurance and quality control (QA/QC) procedures for the PCB air sampling program will follow those described in the GE site SAP/DCAQAP. Quality assurance and quality control for the particulate sampling will be based on manufacturer's recommendations.

6.0 PCB SAMPLE DOCUMENTATION, HANDLING AND SHIPMENT

Each filter holder and PUF cartridge holder will be pre-marked with a permanent identification number. As each sample is collected it will be recorded on a field data form and a Chain-of-Custody form, along with the date, time and location of collection. Examples of the field data forms for PCB sampling are presented in the SAP/DCAQAP.

All samples will be securely wrapped for shipment. PCB samples will be preserved at 4°C and shipped on blue ice. Samples will be shipped under chain-of-custody by commercial overnight carrier or courier to the analytical laboratory. Complete details on the PCB sample shipment procedures are contained in the SAP/DCAQAP.

7.0 METEOROLOGICAL MONITORING

Meteorological data from the Climatronics Electronic Weather Station (EWS) operated at the GE facility in Pittsfield, Massachusetts will be obtained and included with the sampling results. This EWS has been operating continuously since 1991 at the GE facility in East Street Area 2 providing data to support other GE activities under the MCP. The EWS measures and records wind speed, wind direction, precipitation, temperature, relative humidity and integrated solar radiation. Barometric pressure will be measured and recorded manually on each sampling day. The siting of the meteorological station was established with the approval of DEP. The station was installed and continues to operate in accordance with EPA On-site Meteorological Program Guidance for Regulatory Modeling Applications and a Site Specific Meteorological Monitoring Quality Assurance Project Plan. The operation of the EWS has been successfully audited by Massachusetts Department of Environmental Protection (DEP).

Barometric pressure will be measured and recorded manually on each sampling day. In addition, a portable relativity humidity indicator will be used for field verification of humidity conditions.

8.0 DOCUMENTATION AND REPORTING

Particulate data will be summarized daily and reported to the GE site manager within 24 hours of collection. PCB results will be reported to the GE site manager and EPA/DEP as soon as they become available. All field and laboratory data recorded during ambient monitoring will be documented according to the procedures in the SAP/DCAQAP. A written report summarizing the results will be provided to GE within 8 weeks of the conclusion of sampling and will include the following:

Date and Time of Sampling
Sampling Locations
Calibration and Maintenance Activities
Pollutants Monitored
Number of Samples Collected
Analytical Results
Quality Assurance Assessment
Meteorological Data Summary
Discussion of Problems or Disruptions
Signature of Individual Responsible For Monitoring Program

9.0 ACTION LEVELS

9.1 *PCB's*

The proposed notification and action levels for PCB concentrations in ambient air are 0.05 $\mu g/m^3$ (24-hour average) and 0.1 $\mu g/m^3$ (24-hour average), respectively. These are the same levels established by EPA for the GE Building 68 Removal Action and for off-site remediation activities in Pittsfield. Any exceedance of the notification level will be immediately reported to the DEP. If the action level is exceeded, GE will discuss appropriate corrective action (including temporary stoppage of work) with the DEP.

9.2 *Particulate Matter*

For each day of monitoring, the particulate data from the downwind monitor will initially be compared with the data from the background monitor. If the average 10-hour PM_{10} concentration at the downwind monitor exceeds the average concentration at the background monitor, the downwind concentrations will then be compared with a notification level of 120 $\mu g/m^3$ (micrograms per cubic meter) -- which represents 80 percent of the current 24-hour National Ambient Air Quality Standard (NAAQS) for PM_{10} (150 $\mu g/m^3$). This level has been selected to allow notice to GE before concentrations reach the level of the 24-hour NAAQS. Any exceedances of the notification level or the NAAQS will be immediately reported to the OSC, and GE's Project Coordinator will discuss with the OSC the need for and type of response actions.