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Corporate Environmental Programs
General Electric Company
100 Woodlawn Avenue, Pittsfield, MA 01201

June 9, 2000



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Mr. Dean Tagliaferro
US Environmental Protection Agency
One Congress Street, Suite 1100
Boston, MA 02114-2023

Ms. Susan Steenstrup
Department of Environmental Protection
436 Dwight Street
Springfield, MA 01103

**Re: Upper 1/2-Mile Reach of Housatonic River Removal Action
Monthly Report – May 2000**

Dear Mr. Tagliaferro and Ms. Steenstrup:

In accordance with the approved Removal Action Work Plan - Upper 1/2 Mile Reach of Housatonic River, enclosed please find the May 2000 Monthly Report.

Please call with any questions.

Yours truly,

William A. Horne / for

Andrew T. Silfer, P.E.
Senior Technical Manager

- cc: J.R. Bieke, Esquire, Shea & Gardner
- M.T. Carroll, GE
- T. Conway, EPA
- R. Goff, ACE
- W.A. Horne, GE
- H. Inglis, EPA
- J.H. Maxymillian, Maxymillian Technologies
- S. Messur, BBL
- K.C. Mitkevicius, USACE
- T. O'Brien, MA EOE
- B. Olson, EPA
- A.J. Thomas, Esquire, GE
- A. Weinberg, DEP
- Public Information Repositories

6809 #

1.0 Overview:

During May 2000, GE and its contractor Maxymillian Technologies Incorporated (MTI) continued work on the Upper ½ mile Reach Removal Action. This work included completion of restoration of the portion of Cells C and D where dense non-aqueous-phase liquid (DNAPL) with coal-tar characteristics (and no PCBs) had been observed (DNAPL Cell), as well as the completion of restoration and removal of sheetpiles from Cells C and D. MTI also completed the final grading and planting activities on the north bank along Cells A, C, D, and E. Additionally, MTI re-mobilized their equipment and work force beyond the 400-foot area where no work was required to Cells F-1 and G-1 on the south and north sides of the river, respectively. Sediment excavation and restoration activities were conducted in Cell F-1 (on the south side of the river) and completed on May 22, 2000. Sediment excavation activities then began in Cell G-1 (north side) and were ongoing during the rest of May.

DNAPL was observed and reported in Cells F-1 and G-1. In Cell G-1 more DNAPL was encountered and could affect progress in this cell significantly. The month of May ended with GE and EPA discussing details of a DNAPL investigation program to determine the lateral and vertical extent of the DNAPL observed in Cell G-1.

Weekly status meetings were held on May 10, 17, 24 and 31.

2.0 Chronological description of the tasks performed:

Refer to the diagram (Exhibit A) referenced in Section 4.0 and attached to this report for an orientation of the sheetpile cells and their respective locations. In the month of May, GE Buildings 33X and 65 were used as temporary storage facilities for TSCA and non-TSCA material. Building 33 was approved for additional storage of non-TSCA material. The DNAPL-impacted sediments impacted by the coal-tar DNAPL (250-300 cy) that were stored in a separate area in Bldg. 33X were disposed of off-site.

During the beginning of May, GE completed all restoration activities in the DNAPL Cell and Cell D, including grouting the source control sheetpiling and placing sand, fabric, geogrid, rock and habitat enhancement boulders (where appropriate) in those cells. Upon completion of restoration activities, all sheetpiling was removed from Cells C and D and the DNAPL Cell. GE also continued to recover coal-tar DNAPL from the newly installed 6-inch-diameter DNAPL recovery well. A total of 25 gallons of a coal-tar DNAPL/water mixture was collected from that well in May. (It should be noted that the April monthly report incorrectly reported that 340 gallons of DNAPL were collected from that well in April.

The actual total amount of coal-tar DNAPL recovered from that well in April was approximately 450 gallons.) These recovery volumes demonstrate that the amount of coal-tar DNAPL collected in the new recovery well has decreased substantially. Indeed, in May, the amount of coal-tar DNAPL recovered from that well continues to decrease. On May 5, approximately 15 gallons of coal-tar DNAPL and water mixture were collected. On both May 8 and 12, 5 gallons of the same liquid mixture was collected. Monitoring of this well continued on a daily basis and recovery took place 1-2 times per week, as appropriate, (there has been insufficient coal-tar DNAPL present in the well to make recovery practicable since May 15).

Also during the beginning of May, substantial efforts were made to clean and dispose of the equipment and material used in the extensive coal-tar DNAPL excavation operation that was completed in late April. In addition to the off-site disposal of 250-300 cy of coal-tar DNAPL impacted sediment, these efforts included the following:

- Cleaning of the 500,000-gallon water storage tank, including removal and disposal of 175-200 measured gallons of coal-tar DNAPL from that tank as well as removal and disposal of a mixture of coal-tar DNAPL and water.
- Temporary storage for off-site disposal of sediment from the two half-round settling tanks and frac tank;
- Off-site disposal of the 500,000 gallon tank liner;
- Off-site disposal of sand bags; and
- Cleaning of sheetpiles, pumps, and related excavation equipment.

Final grading and planting were conducted on the north bank along Cells A, C, D, and E. A total of 362 trees and 312 shrubs were planted. Meetings were held on May 10 and 12 with EPA, MDEP, and a representative of the natural resource Trustees to finalize the specific number of plantings.

MTI began mobilization efforts at the next work section of the river, which is approximately 400 feet downstream from Cell D. MTI installed access roads and relocated a crane to begin sheetpiling installation along the north bank adjacent to Cells F and G. Clearing operations (for trees and brush) were advanced roughly 600 feet along the north bank. Sheetpiles were installed during the early part of May and Cell F-1 was isolated from the rest of the river on May 8. The water distribution system had to be relocated from Cell D to Cell F-1 to begin de-watering activities in Cell F-1. Also, access to this cell was from the north side of the river and required the removal of an abandoned asbestos-insulated steam line.

On May 15, DNAPL was observed in Cell F-1 (south side) near the center of the river along the sheetpile, apparently leaking through a joint in the sheetpile from the adjacent area on the north side of the river. GE then:

- (1) Reported the observed DNAPL and corresponding oil sheen to the National Response Center (NRC) (release tracking number 529007), EPA and MDEP, and also notified EPA and MDEP that this finding may constitute a “force majeure” under the Consent Decree;
- (2) Isolated the DNAPL area (8' x 4') from the rest of Cell F-1 with a sand bag barrier/berm;
- (3) Collected a total of approximately 10 gallons of a mixture of DNAPL oil and water (estimated 2-3 gallons of DNAPL oil);
- (4) Obtained a sample of the DNAPL and received the analytical data (which showed PCB Aroclor 1260 at 350,000 ppm);
- (5) Based on the analytical results and volume estimate, reported a potential release over the reportable quantity of one pound of PCBs in a 24-hour period to the NRC, EPA, and MDEP;
- (6) Installed 4 soil borings 4-6 feet deep in the area of the DNAPL;
- (7) Excavated the DNAPL area (3' x 3') to a total depth of 4 feet as called for in the Work Plan (this excavation confirmed that the DNAPL was migrating from a joint in the sheetpiling, not emerging from the bottom of the excavated area);
- (8) Sealed the joint in the sheetpile with bentonite pellets to stop the leakage and confirmed that it had effectively done so;
- (9) Obtained EPA approval to complete the restoration of Cell F-1; and
- (10) As an additional precaution, placed an extra layer of fabric and additional isolation material over the DNAPL area prior to backfilling that area to grade.

Work in Cell F-1, including the restoration of that cell, was completed in May 22, including placement of fabric, isolation material, geogrid, and rock.

Upon completion of Cell F-1, the upstream and downstream cutoff sheetpile walls were removed and relocated to the north side of the river, creating Cell G-1.

This cell was de-watered on May 25, and DNAPL was observed in the downstream portion of this cell. On May 25, GE promptly reported the observed DNAPL and corresponding oil sheen to the EPA, NRC, and MDEP. The NRC issued a release tracking number 530201. There was not enough DNAPL observed to collect a sample for analysis. On May 30, after excavation in Cell G-1 had begun, a sample of DNAPL was collected and final analytical results were not received until June 2. On May 31, additional pockets of DNAPL were observed in Cell G-1, and GE excavated the DNAPL area (20' x 40') to an additional depth of one foot (total depth of 3 to 3.5 feet).

During May, approximately 1935 cy of non-TSCA material, removed from the Upper ½ Mile Reach were transported to and placed at the Hill 78 OPCA. This material was previously stockpiled in Buildings 33X and 65. GE Building 33 was approved for use for a temporary stockpile of non-TSCA material.

3.0 Number of samples collected:

Water column monitoring for total suspended solids (TSS) was conducted on a daily basis. Water column PCB samples were collected once every 2 weeks on May 11 and 25, 2000. The TSS and PCB results received to date for the month of May are attached to this report (Table 1A and 1B).

A sample of the soil backfill material to be used during the restoration activities was collected and analyzed for PCBs. This material was from the Dalton Hardwood source; the analytical results for this material are included in Table 2.

Table 3 presents a summary of analytical results from the DNAPL collected in Cell F-1. Table 4 provides the analytical results from liquid (coal-tar DNAPL and water) consolidated into 2 frac tanks from the 500,000 gallon settling tank. Table 5 presents the analytical results from the 1.5 cy of DNAPL impacted sediment removed from Cell F-1.

Table 6 summarizes the analytical results from testing of the liner used in the 500,000 gallon tank during the coal-tar DNAPL excavation. Table 7 provides the results from the de-con wipe samples from the vac-truck used during the coal-tar DNAPL excavation.

In the month of May, particulate air monitoring was conducted from May 1 to May 31. PCB air monitoring was conducted on May 11 and 12. The results are attached to this report (Tables 8 and 9)

4.0 Diagrams associated with the tasks performed:

A diagram labeled as Exhibit A shows the location of the Cells (A, B, C, D, E, F, and G) and is attached to this report for reference.

A summary chart (Exhibit B) has been developed to assist in tracking the analytical and physical testing requirements of the various sources of backfill (e.g., isolation material, soil back fill, rip-rap rock, etc.). Exhibit B includes the placed volume of backfill materials, the analytical and physical testing frequencies required by the Work Plan, and the testing that has been performed to date. This table will be updated regularly and included in the monthly reports.

5.0 Identification of any reports received and prepared:

During the month of May, meeting summaries from various status meetings were submitted to EPA, MDEP and EOE. For work completed in April 2000, the monthly reports required by the Consent Decree and the Upper ½ Mile Reach Removal Action Work Plan both submitted on May 9 and May 10, respectively.

In addition, in May, GE submitted the following:

- Field Survey Procedures reflecting comments from EPA;
- Revised plan and cross section from the coal- tar DNAPL removal;
- Material specifications for isolation material and soil backfill;
- Planting specifications and summary of meeting from planting discussion;
- Letter of May 18 confirming agreement between GE and EPA regarding extension of time for GE to seek dispute resolution of EPA's March 24, 2000 determination that the February 28, 2000 high-flow event did not constitute a "force majeure" event; and
- Letter of May 24 following up on GE's "force majeure" notification for the DNAPL found in Cell F-1.

6.0 Photo documentation of activities performed: See attached Figure 1

7.0 Brief description of activities to be performed in June 2000:

Throughout the upcoming weeks in the month of June, the following activities are anticipated to take place:

- DNAPL investigation in Cell G-1 will be completed, and appropriate measures will be evaluated and implemented, in coordination with EPA, to address the DNAPL in Cell G-1.
- Excavation and restoration will be advanced in areas not affected by the DNAPL in Cell G-1.
- Bank excavation will be conducted on the south side of the river adjacent to Cells F-1 and F-2.
- Water column monitoring and air monitoring will continue as required by the Upper ½ Mile Work Plan. Air monitoring locations will be moved as approved by EPA to locations downstream on both sides of the river.

8.0 Attachments to this report:

- Table 1A and 1B- Water column monitoring TSS and PCB results;
- Table 2 - Analytical results from soil backfill source.
- Table 3 - DNAPL results from Cell F-1.
- Table 4 - Analytical results from coal-tar DNAPL and water mixture remaining in the 500,000 gallon tank.
- Table 5 - Analytical results of DNAPL impacted sediments removed from Cell F-1.
- Table 6 - Analytical results from the tank liner (coal-tar DNAPL).
- Table 7 - Decon wipe samples from vac-truck (coal-tar DNAPL).
- Table 8 and 9 - Particulate and PCB air monitoring results.
- Exhibit A - Diagram to show the locations of cells within the upstream part of the Upper ½ Mile Reach Removal Action.
- Exhibit B – Backfill quantity summary chart.
- Figure 1 - Photo documentation.

TABLE 1A

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

MAY 2000

UPPER 1/2 MILE REACH REMOVAL ACTION
HOUSATONIC RIVER PCB/TSS/TURBIDITY MONITORING DURING CONSTRUCTION

Location	Date	Water Depth (ft)	Water Temp. (°C)	Flow (cfs)	Turbidity (ntu) ¹¹			Sample ID	Total PCB Concentration ¹⁴ (ug/l)	Filtered PCB Concentration (ug/l)	TSS (mg/l)
					High	Low	Daily Composite				
Upstream of Newell St. Bridge	5/1/00	1.6	11.0	---	11	2	4	---	---	---	---
Downstream of Lyman St. Bridge	5/1/00	2.0	11.0	---	6	1	3	---	---	---	---
Upstream of Newell St. Bridge	5/2/00	1.9	11.0	---	17	2	3	---	---	---	---
Downstream of Lyman St. Bridge	5/2/00	2.5	11.0	---	14	3	4	---	---	---	---
Upstream of Newell St. Bridge	5/3/00	2.6	12.0	---	4	2	3	---	---	---	---
Downstream of Lyman St. Bridge	5/3/00	3.0	12.0	---	14	2	4	---	---	---	---
Upstream of Newell St. Bridge	5/4/00	2.0	13.0	---	7	1	3	---	---	---	---
Downstream of Lyman St. Bridge	5/4/00	2.5	13.0	---	10	1	4	---	---	---	---
Upstream of Newell St. Bridge	5/5/00	1.9	14.0	---	7	2	3	---	---	---	---
Downstream of Lyman St. Bridge	5/5/00	2.4	14.0	---	3	1	3	---	---	---	---
Upstream of Newell St. Bridge	5/8/00	2.1	18.0	---	7	2	4	---	---	---	---
Downstream of Lyman St. Bridge	5/8/00	2.8	18.0	---	21	2	5	---	---	---	---
Upstream of Newell St. Bridge	5/9/00	2.2	21.0	---	3	2	3	---	---	---	---
Downstream of Lyman St. Bridge	5/9/00	2.9	21.0	---	8	3	5	---	---	---	---
Upstream of Newell St. Bridge	5/10/00	2.0	19.0	---	21	2	7	---	---	---	---
Downstream of Lyman St. Bridge	5/10/00	2.8	19.0	---	15	2	6	---	---	---	---
Upstream of Newell St. Bridge	5/11/00	3.3	13.5	240	10	3	7	HR-5-11-00-U1	0.0520	ND(0.0250)	21.7
Downstream of Lyman St. Bridge	5/11/00	4.0	13.5	240	18	9	13	HR-5-11-00-D1	1.79	0.0445	20.2
Upstream of Newell St. Bridge	5/12/00	3.0	14.0	---	5	3	4	---	---	---	---
Downstream of Lyman St. Bridge	5/12/00	3.7	14.0	---	14	3	4	---	---	---	---
Upstream of Newell St. Bridge	5/15/00	2.5	14.0	---	5	2	5	---	---	---	---
Downstream of Lyman St. Bridge	5/15/00	3.3	14.0	---	6	2	4	---	---	---	---
Upstream of Newell St. Bridge	5/16/00	2.2	16.0	---	4	2	3	---	---	---	---
Downstream of Lyman St. Bridge	5/16/00	3.0	16.0	---	8	3	4	---	---	---	---
Upstream of Newell St. Bridge	5/17/00	2.0	14.0	77	4	2	3	---	---	---	---
Downstream of Lyman St. Bridge	5/17/00	2.8	14.0	72	4	3	4	---	---	---	---
Upstream of Newell St. Bridge	5/18/00	2.0	14.0	---	3	3	4	---	---	---	---
Downstream of Lyman St. Bridge	5/18/00	2.8	14.0	---	4	3	4	---	---	---	---

TABLE 1A

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

MAY 2000

UPPER 1/2 MILE REACH REMOVAL ACTION
HOUSATONIC RIVER PCB/TSS/TURBIDITY MONITORING DURING CONSTRUCTION

Location	Date	Water Depth (ft)	Water Temp. (°C)	Flow (cfs)	Turbidity (ntu) ¹³			Sample ID	Total PCB Concentration ¹⁴ (ug/l)	Filtered PCB Concentration (ug/l)	TSS (mg/l)
					High	Low	Daily Composite				
Upstream of Newell St. Bridge	5/19/00	2.7	14.0	---	14	5	10	---	---	---	---
Downstream of Lyman St. Bridge	5/19/00	3.5	14.0	---	13	6	8	---	---	---	---
Upstream of Newell St. Bridge	5/22/00	2.5	11.0	---	8	2	4	---	---	---	---
Downstream of Lyman St. Bridge	5/22/00	3.3	11.0	---	7	2	3	---	---	---	---
Upstream of Newell St. Bridge	5/23/00	2.4	12.0	---	4	2	4	---	---	---	---
Downstream of Lyman St. Bridge	5/23/00	3.2	12.0	---	6	2	5	---	---	---	---
Upstream of Newell St. Bridge	5/24/00	3.1	13.0	---	16	9	15	---	---	---	---
Downstream of Lyman St. Bridge	5/24/00	3.8	13.0	---	19	5	14	---	---	---	---
Upstream of Newell St. Bridge	5/25/00	4.3	14.0	291	18	7	12	HR-5-25-00-U1	NR	NR	NR
Downstream of Lyman St. Bridge	5/25/00	5.0	14.0	297	31	8	19	HR-5-25-00-D1	NR	NR	NR
Upstream of Newell St. Bridge	5/26/00	3.7	13.0	---	6	3	7	---	---	---	---
Downstream of Lyman St. Bridge	5/26/00	4.4	13.0	---	9	4	8	---	---	---	---
Upstream of Newell St. Bridge	5/30/00	2.4	14.0	---	24	1	6	---	---	---	---
Downstream of Lyman St. Bridge	5/30/00	3.1	14.0	---	13	3	6	---	---	---	---
Upstream of Newell St. Bridge	5/31/00	2.3	14.0	---	13	1	2	---	---	---	---
Downstream of Lyman St. Bridge	5/31/00	2.9	14.0	---	11	1	3	---	---	---	---

Notes:

1. PCB and TSS samples were collected by Blasland, Bouck & Lee, Inc. and analyzed by Northeast Analytical, Inc.
2. Water depth taken at sampling point (i.e. middle of river).
3. ft - Feet
4. °C - degrees Celsius
5. cfs - cubic feet per second
6. ntu - nephelometric turbidity units
7. --- - No data obtained
8. ND(0.25) - Compound was analyzed for but not detected at the quantitation limit indicated in parentheses.
9. NR - Not yet reported
10. ug/l - micrograms per liter
11. mg/l - milligrams per liter
12. Turbidity Action Level = Turbidity downstream \leq Turbidity upstream + 50 ntu
13. PCB Action Level = PCBs downstream \leq PCBs upstream + 5 ug/l

TABLE 1B

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER PCB/TSS/TURBIDITY MONITORING DURING CONSTRUCTION
DATA RECEIVED DURING MAY 2000
UPPER 1/2 MILE REACH
(Results are presented in parts per million, ppm)

Sample ID	Location	Date Collected	Aroclor 1016, 1221, & 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs	TSS
HIR-4-26-00-U1	Upstream of Newell St. Bridge	4/26/00	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	0.0000451	ND(0.0000250)	0.0000451	7.80
HIR-4-26-00-U1 (FILTERED)	Upstream of Newell St. Bridge	4/26/00	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	---
HIR-4-26-00-D1	Downstream of Lyman St. Bridge	4/26/00	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	0.0000607	ND(0.0000250)	0.0000607	4.60
HIR-4-26-00-D1 (FILTERED)	Downstream of Lyman St. Bridge	4/26/00	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	---
HIR-5-11-00-U1	Upstream of Newell St. Bridge	5/11/00	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	0.0000520 AF	ND(0.0000250)	0.0000520	21.7
HIR-5-11-00-U1 (FILTERED)	Upstream of Newell St. Bridge	5/11/00	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	---
HIR-5-11-00-D1	Downstream of Lyman St. Bridge	5/11/00	ND(0.000125)	ND(0.000125)	0.000388 PE	ND(0.000125)	0.00140 AG	0.00179	20.2
HIR-5-11-00-D1 (FILTERED)	Downstream of Lyman St. Bridge	5/11/00	ND(0.0000250)	0.0000445 PD	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	0.0000445	---

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical Services, Inc. for analysis of filtered and unfiltered PCBs and Total Suspended Solids (TSS).
2. ND(0.10) - Analyte was not detected. The value in parentheses is the associated detection limit.
3. --- - Not analyzed.
4. AF - Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.
5. AG - Aroclor 1260 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.
6. PD - Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
7. PE - Aroclor 1248 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1248 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.

TABLE 2

**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS**

**BACKFILL SOIL SAMPLING
PCB DATA RECEIVED DURING MAY 2000
UPPER 1/2 MILE REACH**

(Results are presented in dry-weight parts per million, ppm)

Sample ID	Date Collected	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
D11-BF-3	5/18/00	ND(0.0522)	ND(0.0522)	ND(0.0522)	ND(0.0522)	ND(0.0522)	ND(0.0522)	ND(0.0522)	ND(0.0522)
D11-BF-4	5/18/00	ND(0.0520) [ND(0.0501)]	ND(0.0520) [ND(0.0501)]	ND(0.0520) [ND(0.0501)]	ND(0.0520) [ND(0.0501)]	ND(0.0520) [ND(0.0501)]	ND(0.0520) [ND(0.0501)]	ND(0.0520) [ND(0.0501)]	ND(0.0520) [ND(0.0501)]

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical Services, Inc. for analysis of total PCBs.
2. ND(0.10) - Analyte was not detected. The value in parentheses is the associated detection limit.
3. Blind duplicate results are presented in brackets.

TABLE 3

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTSDNAPL FROM CELL SAMPLE DATA
RECEIVED DURING MAY 2000
UPPER 1/2 MILE REACH

(Results are presented in parts per million, ppm)

Sample ID:	HR-DNAPL-CELL-F-1
Date Collected:	05/15/00
Volatile Organics	
Chlorobenzene	1290
PCBs	
Aroclor 1260	350000
Total PCBs	350000
Semivolatile Organics	
1,2,4-Trichlorobenzene	235000
1,4-Dichlorobenzene	6050

Notes:

1. Sample was collected by Blasland, Bouck & Lee, Inc., and submitted to Northeast Analytical Services, Inc. for analysis of PCBs, volatiles, and semivolatiles.
2. Only detected constituents are summarized.

TABLE 4

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTSFRAC TANK WATER SAMPLING
PCB DATA RECEIVED DURING MAY 2000
UPPER 1/2 MILE REACH
(Results are presented in parts per million, ppm)

Sample ID	Date Collected	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
HR-CHFT-WATER-1	5/9/00	ND(0.00050)	ND(0.00050)	ND(0.00050)	ND(0.00050)	ND(0.00050)	ND(0.00050)	0.0022	0.0022

Notes:

1. Sample was collected by Blasland, Bouck & Lee, Inc. and submitted to CT&E Environmental Services, Inc. for analysis of total PCBs.
2. ND(0.10) - Analyte was not detected. The value in parentheses is the associated detection limit.

TABLE 5

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CELL F1 BLUE TOTE SEDIMENT SAMPLING
TCLP DATA RECEIVED DURING MAY 2000
UPPER 1/2 MILE REACH
(Results are presented in parts per million, ppm)

Sample ID: Date Collected:	TCLP Maximum Concentrations	HR-SED-FL-1 5/22/00
Volatile Organics		
1,1-Dichloroethene	0.7	ND(0.10)
1,2-Dichloroethane	0.5	ND(0.10)
2-Butanone	200	ND(0.20)
Benzene	0.5	ND(0.10)
Carbon Tetrachloride	0.5	ND(0.10)
Chlorobenzene	100	ND(0.10)
Chloroform	6	ND(0.10)
Tetrachloroethene	0.7	ND(0.10)
Trichloroethene	0.5	ND(0.10)
Vinyl Chloride	0.2	ND(0.10)
Semivolatile Organics		
1,4-Dichlorobenzene	7.5	0.058
2,4,5-Trichlorophenol	400	ND(0.050)
2,4,6-Trichlorophenol	2	ND(0.050)
2,4-Dinitrotoluene	0.13	ND(0.050)
Cresol	200	ND(0.050)
Hexachlorobenzene	0.13	ND(0.050)
Hexachlorobutadiene	0.5	ND(0.050)
Hexachloroethane	3	ND(0.050)
Nitrobenzene	2	ND(0.050)
Pentachlorophenol	100	ND(0.050)
Pyridine	5	ND(0.050)
Inorganics		
Arsenic	5	ND(0.100)
Barium	100	1.20
Cadmium	1	ND(0.0200)
Chromium	5	ND(0.0500)
Lead	5	ND(0.100)
Mercury	0.2	ND(0.000200)
Selenium	1	ND(0.200)
Silver	5	ND(0.0200)

Notes:

- Sample was collected by Blasland, Bouck & Lee, Inc. and submitted to CT&E Environmental Services, Inc. for analysis of TCLP constituents excluding herbicides and pesticides.
- ND(0.050) - Analyte was not detected. The value in parentheses is the associated detection limit.

(Table 5 continued)

THE M&P LAB
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THE M&P LAB
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THE M&P LAB

Schenectady Materials and Processes Laboratory, Inc.

net: www.the-mandp-lab.com e-mail: info@the-mandp-lab.com
2210 Technology Drive PO Box 724
Schenectady, NY 12301
phone: 518-382-0082
fax: 518-382-1182
LAB NO.: KR-0611

Page 1 of 2

REPORT

DATE RECEIVED: May 18, 2000

DNAPL
in
Cell F-1

REQUESTED BY: Bill Kotas

COMPANY: Northeast Analytical, Inc.

STREET ADDRESS: 2190 Technology Drive

CITY: Schenectady, NY 12308

PHONE: 518-346-4592

COPIES: N.V. Gjaja

PURCHASE ORDER NO.: 574

CUSTOMER REQUEST NO.: N.A.

DESCRIPTION OF MATERIAL AND WORK REQUESTED:

One jar containing an oil:water mix labeled as HR-DNAPL-Cell-F-1 was hand carried to The M&P Lab for viscosity testing.

WORK BY: Jan M. Principe

RESULTS

SOURCE NO.: N. A.

DATE REP.: May 19, 2000

The sample was allowed to sit overnight to separate the oil and water. The oil (i.e., DNAPL) was suctioned into a 100-G585 viscometer and placed into an oil bath at 100 °F. Duplicate viscosity measurements were made on this sample. Table 1 below shows the average result of this test.

Water was run as a check for the method. The results of this check were acceptable.

(Continued on page 2)

Reviewed by: Warren W. Hoffman
Warren W. Hoffman

Jan M. Principe
Jan M. Principe

I HEREBY CERTIFY THAT THE DATA CONTAINED IN THIS REPORT HAVE BEEN GENERATED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE ABOVE PURCHASE ORDER.

Tom Y. G... 10/5/00
Quality Assurance Administrator

THE M&P LAB

Page 2 of 2

KR-0611
Bill Kotas

Table 2.5 continued
Viscosity of DNAPL and Distilled, Deionized Water at 100 °F
The viscosity is presented as cStokes.

Sample	Viscosity
DNAPL (ave of duplicates)	5.860
Water check, 100 °F	0.699
Water at 104 °F ¹	0.657

¹ Taken from Perry's Chemical Engineers' Handbook, Sixth Edition

Material Disposition

The sample is being returned to the customer with this report.

TABLE 6

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

LINER FROM TANK CLEANOUT SAMPLING
TCLP DATA RECEIVED DURING MAY 2000
UPPER 1/2 MILE REACH
(Results are presented in parts per million, ppm)

Sample ID: Date Collected:	TCLP Maximum Concentrations	HR-LINER-1 5/22/00
Volatile Organics		
1,1-Dichloroethene	0.7	ND(0.10)
1,2-Dichloroethane	0.5	ND(0.10)
2-Butanone	200	ND(0.20)
Benzene	0.5	ND(0.10)
Carbon Tetrachloride	0.5	ND(0.10)
Chlorobenzene	100	ND(0.10)
Chloroform	6	ND(0.10)
Tetrachloroethene	0.7	ND(0.10)
Trichloroethene	0.5	ND(0.10)
Vinyl Chloride	0.2	ND(0.10)
Semivolatile Organics		
1,4-Dichlorobenzene	7.5	ND(0.050)
2,4,5-Trichlorophenol	400	ND(0.050)
2,4,6-Trichlorophenol	2	ND(0.050)
2,4-Dinitrotoluene	0.13	ND(0.050)
Cresol	200	ND(0.050)
Hexachlorobenzene	0.13	ND(0.050)
Hexachlorobutadiene	0.5	ND(0.050)
Hexachloroethane	3	ND(0.050)
Nitrobenzene	2	ND(0.050)
Pentachlorophenol	100	ND(0.050)
Pyridine	5	ND(0.050)

Notes:

- Sample was collected by Blasland, Bouck & Lee, Inc. and submitted to CT&E Environmental Services, Inc. for analysis of volatile and semivolatile TCLP constituents.
- ND(0.050) - Analyte was not detected. The value in parentheses is the associated detection limit.

TABLE 7

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

CLEAN HARBORS VAC TRUCK DECON WIPE SAMPLING
PCB DATA RECEIVED DURING MAY 2000
UPPER 1/2 MILE REACH
(Results are presented in $\mu\text{g}/100\text{cm}^3$)

Sample ID: Date Collected:	CHI-VAC-W1 05/09/00	CHI-VAC-W2 05/09/00	CHI-VAC-W3 05/09/00	CHI-VAC-W4 05/09/00	CHI-VAC-W1 05/17/00	CHI-VAC-W2 05/17/00	CHI-VAC-W3 05/17/00	CHI-VAC-W4 05/17/00
PCBs								
Aroclor-1016	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Aroclor-1221	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Aroclor-1232	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Aroclor-1242	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Aroclor-1248	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Aroclor-1254	2.8	3.0	9.9	2.0	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Aroclor-1260	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Total PCBs	2.8	3.0	9.9	2.0	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and were submitted to Adirondack Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parentheses is the associated quantitation limit.

TABLE 8

**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS**

**MAY 2000 AMBIENT AIR DATA
UPPER 1/2 MILE REACH**

Date	Sampler Location	Average Site Concentration (mg/m ³)	BM1 ¹ (mg/m ³)	Average Period (Hours:Min)	Predominant Wind Direction
05/01/2000	AM2 (south side of river)	0.006	0.008	6:45 ¹	SSW
5/2/00	AM2 (south side of river)	0.008	0.010	7:15 ²	N
5/3/00	AM2 (south side of river)	0.006	0.009	9:45	SW
5/4/00	AM2 (south side of river)	0.012	0.020	9:30	SSW
05/05/2000 ³	AM2 (south side of river)				
5/8/00	AM2 (south side of river)	0.019	0.023	10:00	WSW
5/9/00	AM2 (south side of river)	0.026	0.037	9:30	WSW
05/10/2000 ⁴	AM2 (south side of river)				
5/11/00	AM2 (south side of river)	0.004	0.005	8:30	WNW
05/12/2000 ⁴	AM2 (south side of river)				
5/15/00	AM2 (south side of river)	0.009	0.008	10:15	W
5/16/00	AM2 (south side of river)	0.007	0.009	9:45	W
5/17/00	AM2 (south side of river)	0.009	0.012	10:30	W, SSW
05/18/2000 ⁴	AM2 (south side of river)				
05/19/2000 ⁴	AM2 (south side of river)				
05/22/2000 ⁴	AM2 (south side of river)				
5/23/00	AM2 (south side of river)	0.030	0.030	8:30	SSW
05/24/2000 ⁴	AM2 (south side of river)				
5/25/00	AM2 (south side of river)	0.008	0.009	6:45 ²	W
5/26/00	AM2 (south side of river)	0.005	0.006	9:15	WNW
05/29/2000 ⁵	AM2 (south side of river)				
5/30/00	AM2 (south side of river)	0.004	0.006	8:45	E
5/31/00	AM2 (south side of river)	0.008	0.011	10:15	SSW
Notification Level		0.120			

Notes:

NA - Not Available

BM-1: Background monitoring location west of Bldg. 42.

AM-2: Air monitoring location near tennis courts within Lakewood Park, southeast bank.

¹ Sampling period was shortened due to instrument malfunction.² Sampling period was shortened due to precipitation/threat of precipitation.³ Sampling was not performed at the request of Bill Horne (GE).⁴ Sampling was not performed due to precipitation/threat of precipitation.⁵ Sampling was not performed due to the Holiday.

**MAY 2000 PCB AMBIENT AIR CONCENTRATIONS
1/2 MILE REMOVAL ACTION
PITTSFIELD, MASSACHUSETTS**

Table 9

Date	BM-1 ug/m³	AM-1 ug/m³	AM-2 ug/m³	AM-3 ug/m³	AM-3 co-located ug/m³	AM-4 ug/m³
05/11 - 05/12/00	0.0018	0.0013	0.0018	0.0091	0.0159	0.0071
Notification Level	0.05	0.05	0.05	0.05	0.05	0.05

Notes:

BM-1: Background monitoring location west of Bldg. 42.

AM-1: Air monitoring location east of Bldg. 64V, near current work/staging area, northeast bank.

AM-2: Air monitoring location near tennis courts within Lakewood Park, southeast bank.

AM-3: Air monitoring location north bank, north of Bldg. 64W. This location is also a co-located site.

AM-4: Air monitoring location south bank, at 261 Newell St. behind building formerly known as F.W. Webb.

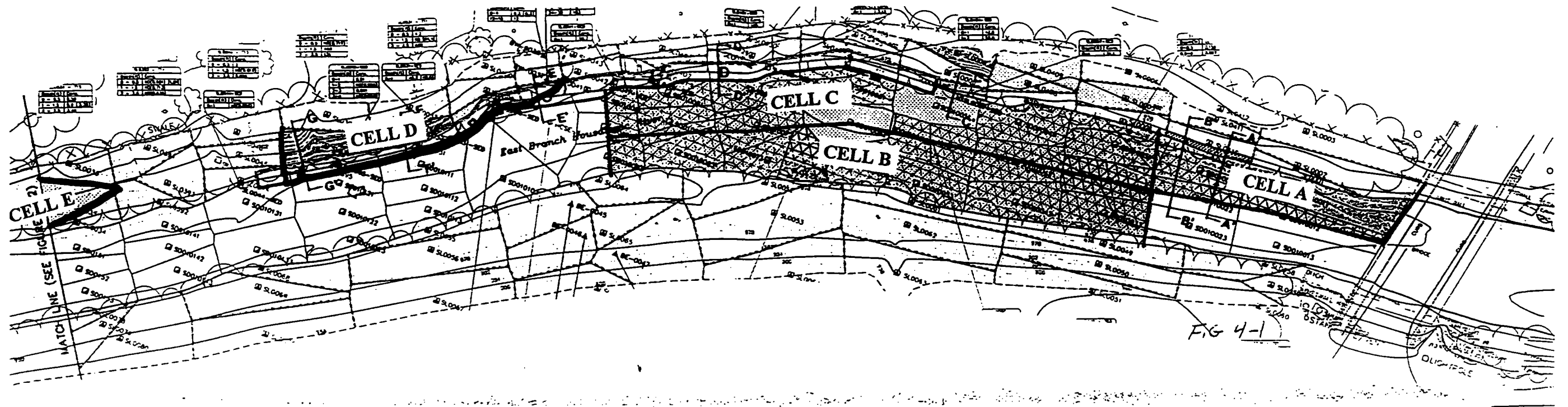


EXHIBIT A
UPPER 1/2 MILE REACH REMOVAL ACTION

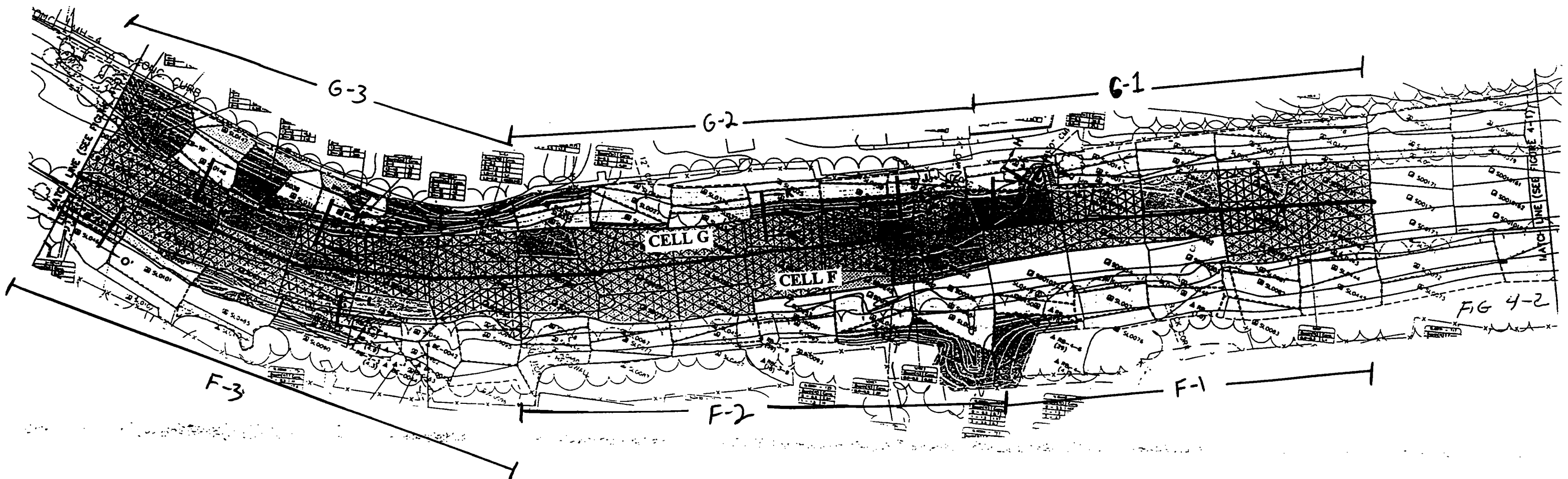


EXHIBIT B

General Electric Company
Pittsfield, Massachusetts

Revision Date: 31-May-00

1/2-Mile Removal Action Backfill Tracking Log

Material	Testing Required	Frequency (per cy)	Submittal from MTI		Submittal to EPA		Sample Date	Number of Samples	Quantity Approved for Placement	Quantity Placed (cy)	Comments
			No.	Date	No.	Date					
Soil Backfill/Granular Fill (Brown's Pit)	Grain Size	2000	13/13A	11/17 & 11/18/99	8	12/1/1999	11/16/1999	1	1000	670	Samples Collected as part of Allendale School Project
	PCBs	500	NA	NA	8A	12/15/1999	12/8/1999	2			
			NA	NA	14	5/31/2000	5/18/2000	2			
	VOCs	2000	NA	NA	8A	12/15/1999	7/21-7/28/99	6			
	SVOCs	2000	NA	NA	8A	12/15/1999	7/21-7/28/99	6			
	Metals	2000	NA	NA	8A	12/15/1999	7/21-7/28/99	6			
	TPH	2000	NA	NA	8A	12/15/1999	12/1/1999	3			
Isolation Layer (Pittsfield Sand & Gravel)	Grain Size	500	12	11/17/1999	Letter	11/19/1999	11/1/1999	1	1000	667	Samples collected as part of off-site residential fill program
			12C	3/30/2000	Letter	4/20/2000	3/24/2000	1			
	TOC	500	12	11/17/1999	Letter	11/19/1999	11/2/1999	1			
			12C	3/30/2000	Letter	4/20/2000	3/30/2000	1			
	PCBs	500	NA	NA	Letter	11/19/1999	9/20/1999	4			
			NA	NA	7	12/1/1999	11/19/1999	2			
			NA	NA	Letter	4/20/2000	3/29/2000	2			
	VOCs	2000	NA	NA	Letter	11/19/1999	9/20/1999	4			
	SVOCs	2000	NA	NA	Letter	11/19/1999	9/20/1999	4			
	Metals	2000	NA	NA	Letter	11/19/1999	9/20/1999	4			
TPH	2000	NA	NA	7	12/1/1999	11/19/1999	2				
Isolation Layer (Bushika Sand & Gravel)	Grain Size	500	12A	1/3/2000	Letter	1/6/2000	12/28/1999	1	1000	545	
			12B	1/24/2000	11	2/14/2000	1/19/2000	1			
			12D	5/8/2000	13	5/19/2000	5/2/2000	1			
	TOC	500	12A	1/3/2000	Letter	1/6/2000	12/28/1999	1			
			12B	1/24/2000	11	2/14/2000	1/19/2000	1			
			12D	5/8/2000	13	5/19/2000	5/2/2000	1			
	PCBs	500	NA	NA	10	1/14/2000	1/5/2000	2			
			NA	NA	11	2/14/2000	2/2/2000	2			
	VOCs	2000	NA	NA	10	1/14/2000	1/5/2000	2			
	SVOCs	2000	NA	NA	10	1/14/2000	1/5/2000	2			
	Metals	2000	NA	NA	10	1/14/2000	1/5/2000	2			
	TPH	2000	NA	NA	10	1/14/2000	1/5/2000	2			
NA			NA	11	2/14/2000	2/2/2000	2				
Rip-Rap (9")	Grain Size	2000	15A	11/30/1999	Letter	12/1/1999	11/23/1999	1	2000	820	
Rip-Rap (12")	Grain Size	2000	18	1/4/2000	Letter	1/6/2000	12/29/1999	1	2000	103	
Topsoil (Woodmont)	Organic Content	500	11/14	11/16 & 11/17/99	9	12/15/1999	11/8/1999	2	500	170	Samples collected as part of off-site residential fill program
	pH	500	11/14	11/16 & 11/17/99	9	12/15/1999	11/8/1999	2			
	PCBs	500	NA	NA	9	12/15/1999	12/8/1999	4			
	VOCs	2000	NA	NA	9	12/15/1999	8/24/1999	4			
	SVOCs	2000	NA	NA	9	12/15/1999	8/24/1999	4			
	Metals	2000	NA	NA	9	12/15/1999	8/24/1999	4			
	TPH	2000	NA	NA	9	12/15/1999	12/8/1999	2			

Notes:

Granular Fill and Soil Backfill have been combined as the same material
Quantities placed include Cells A, B, C, D, DNAPL, E+A23+A46+A69

**½ MILE RIVER REMOVAL ACTION
MONTHLY PROGRESS REPORT
MAY, 2000
FIGURE 1 PHOTO DOCUMENTATION**

PHOTO NUMBER: 1

PHOTO LOCATION: Cell F-1
South side of river looking upstream (east).

PHOTO DESCRIPTION:
Restoration complete



PHOTO DATE: 05/19/00

PHOTO NUMBER: 2

PHOTO LOCATION: Cells A and C
North side of river looking upstream (east).

PHOTO DESCRIPTION
Restoration complete including planting

PHOTO DATE: 05/24/00



PHOTO NUMBER: 3

PHOTO LOCATION: Cell G-1
North side of the river looking upstream

PHOTO DESCRIPTION
Sediment excavation moving upstream

PHOTO DATE: 05/31/00

