



GE  
159 Plastics Avenue  
Pittsfield, MA 01201  
USA

*Transmitted Via Electronic Mail/Overnight Delivery*

May 22, 2007

Mr. Dean Tagliaferro  
EPA Project Coordinator  
U.S. Environmental Protection Agency  
c/o Weston Solutions, Inc.  
10 Lyman Street, Suite 2  
Pittsfield, MA 01201

**Re: GE-Pittsfield/Housatonic River Site  
Lyman Street Area (GECD430) – Properties East of Lyman Street  
EPA Requested Information and Analytical Data for Proposed Backfill Sources**

Dear Mr. Tagliaferro:

This letter addresses recent comments provided by the U.S. Environmental Protection Agency (EPA) during an April 30, 2007 site visit and subsequent meetings with General Electric Company (GE) regarding the Lyman Street Area - Properties East of Lyman Street. Additionally, this letter provides a summary of the laboratory analytical results for proposed backfill sources to be used during the response actions.

The attached Revised Engineered Barrier Final Grade Plan (Attachment 1) addresses the following construction activities:

- extending the engineered barrier to the existing pavement along Lyman Street;
- replacing the chainlink fence along Lyman Street within the engineered barrier;
- relocating trees along the riverbank that are removed as a result of the engineered barrier installation;
- removing brush and trees smaller than six inches in diameter in the area subject to Natural Resource Restoration/Enhancement;
- disposing of soil that is removed as part of grading activities in the area subject to Natural Resource Restoration/Enhancement as non-TSCA material at the Hill 78 On-Plant Consolidation Area (OPCA);
- placing three inches of topsoil over soil fill in the area subject to Natural Resource Restoration/Enhancement;
- relocating the above grade/below grade transition of the groundwater collection pipe outside of the engineered barrier; and
- relocating the fence along the northern limit of Parcel I9-8-1 to the property line.

As stated in the March 29, 2007 Supplemental Information Package (SIP), GE is providing analytical results (Attachment 2) associated with sampling of the proposed soil fill and gravel sources to be used by the on-site contractor. Specifically, as indicated in the attached tables, the soil fill sample was collected from a stockpile maintained by Pittsfield Sand & Gravel, located at Brown's Pit in Dalton, Massachusetts; the gravel was collected from a stockpile maintained by Pittsfield Sand & Gravel, located in Pittsfield, Massachusetts. Additionally, as stated in the SIP, GE will be using the on-site stockpiled soil generated during the removal of access roads within the 1½ Mile Floodplain Areas for fill beneath the geosynthetic components of the engineered barrier. The analytical results for the on-site stockpiled soils (as provided by EPA to GE via electronic mail on April 4, 2007) are included in Attachment 3. The analytical results for the proposed topsoil source will be submitted in a forthcoming letter.

If you have any further questions, please feel free to contact me.

Sincerely,

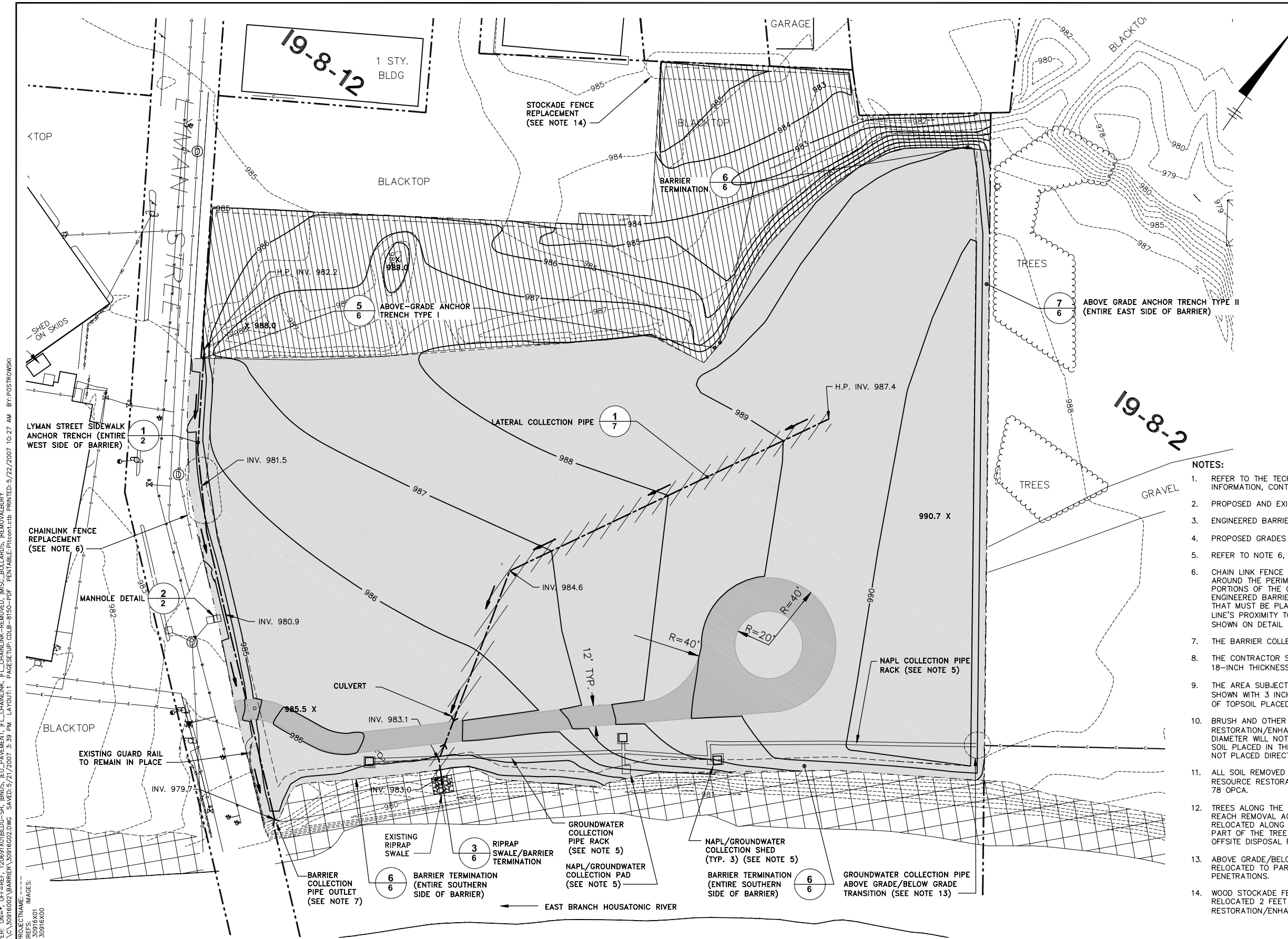
*Richard W. Gates/CAA*

Richard W. Gates  
Remediation Project Manager

CAA/cmb  
Attachments

cc: Rose Howell, EPA\*  
K.C. Mitkevicius, USACE  
Susan Steenstrup, MDEP (2 copies)  
Linda Palmieri, Weston (2 copies)  
Bruce Collingwood, City of Pittsfield  
Michael Carroll, GE\*  
Andrew Silber, GE  
Roderic McLaren, GE\*  
James Nuss, ARCADIS BBL  
James Bieke, Goodwin Procter LLP  
Public Information Repositories  
GE Internal Repository  
\* *without attachments*





- LEGEND**
- APPROXIMATE PROPERTY LINE LOCATION
  - - - GRADE BREAK
  - - - LIMITS OF GRADING
  - 990 PROPOSED CONTOUR (SEE NOTES 2 AND 4)
  - 985.5 X PROPOSED SPOT ELEVATION
  - PROPOSED BARRIER COLLECTION PIPE (SEE NOTE 3)
  - PIPE FLOW DIRECTION
  - /// PERMANENT EROSION CONTROL MAT
  - H.P. HIGH POINT
  - 1/6 AREA SUBJECT TO NATURAL RESOURCE RESTORATION/ENHANCEMENT (SEE NOTES 9, 10 AND 11)
  - 8/6 AREA SUBJECT TO ENGINEERED BARRIER AND NATURAL RESOURCE RESTORATION
  - 8/6 ACCESS ROAD
  - 9/6 AREA PREVIOUSLY ADDRESSED AS PART OF 1/2 MILE REACH REMOVAL ACTIVITIES (SEE NOTE 12)

- NOTES:**
1. REFER TO THE TECHNICAL DRAWINGS OF THE FINAL RD/RA WORKPLAN FOR ADDITIONAL BASEMAP INFORMATION, CONTRACTOR REQUIREMENTS AND DESIGN DETAILS.
  2. PROPOSED AND EXISTING CONTOUR INTERVAL IS 1 FOOT.
  3. ENGINEERED BARRIER COLLECTION PIPES SHALL HAVE A MINIMUM SLOPE OF 0.5%.
  4. PROPOSED GRADES REPRESENT TOP OF ENGINEERED BARRIER (I.E., TOPSOIL).
  5. REFER TO NOTE 6, DRAWING 2 FOR DESCRIPTION OF NAPL COLLECTION SYSTEM ACTIVITIES.
  6. CHAIN LINK FENCE REMOVED AS PART OF THE SITE WORK ACTIVITIES SHALL BE REPLACED AROUND THE PERIMETER OF EACH PROPERTY AT THE PROPERTY LINE. WHEREVER POSSIBLE, PORTIONS OF THE CHAINLINK FENCE SHALL BE RELOCATED OUTSIDE THE LIMITS OF THE ENGINEERED BARRIER TO MINIMIZE LINER PENETRATIONS. PORTIONS OF THE CHAINLINK FENCE THAT MUST BE PLACED WITHIN THE LIMITS OF THE ENGINEERED BARRIER DUE TO THE PROPERTY LINE'S PROXIMITY TO LYMAN STREET, SHALL BE INSTALLED INSIDE OF THE ANCHOR TRENCH (AS SHOWN ON DETAIL 1 OF DRAWING 2 OF THESE TECHNICAL DRAWINGS).
  7. THE BARRIER COLLECTION PIPE OUTLET SHALL EXTEND INTO THE EXISTING RIVER BANK RIPRAP.
  8. THE CONTRACTOR SHALL VERIFY THE 12-INCH THICKNESS OF THE ENGINEERED BARRIER AND 18-INCH THICKNESS OF THE ACCESS ROAD IN ACCORDANCE WITH THE PROJECT'S REQUIREMENTS.
  9. THE AREA SUBJECT TO NATURAL RESOURCE RESTORATION/ENHANCEMENT SHALL BE GRADED AS SHOWN WITH 3 INCHES (MINIMUM) OF TOPSOIL PLACED ABOVE IMPORTED SOIL FILL OR 3 INCHES OF TOPSOIL PLACED ABOVE EXISTING/EXCAVATED SURFACE.
  10. BRUSH AND OTHER GROUND VEGETATION WITHIN THE AREA SUBJECT TO NATURAL RESOURCE RESTORATION/ENHANCEMENT SHALL BE REMOVED. ALL TREES LARGER THAN SIX INCHES IN DIAMETER WILL NOT BE REMOVED AND SHALL BE PROTECTED FROM DAMAGE AND DISTURBANCE. SOIL PLACED IN THE VICINITY OF THE TREES TO REMAIN SHALL BE FEATHERED SO THAT SOIL IS NOT PLACED DIRECTLY AROUND THE TRUNK OF THE TREE.
  11. ALL SOIL REMOVED AS PART OF REGRADING ACTIVITIES IN THE AREA SUBJECT TO NATURAL RESOURCE RESTORATION/ENHANCEMENT SHALL BE DISPOSED OF AS NON-TSCA SOIL AT THE HILL 78 OPCA.
  12. TREES ALONG THE RIVERBANK WITHIN THE AREA PREVIOUSLY ADDRESSED AS PART OF 1/2 MILE REACH REMOVAL ACTIVITIES THAT ARE WITHIN THE ENGINEERED BARRIER LIMITS MUST BE RELOCATED ALONG THE RIVERBANK IN LOCATIONS DETERMINED BY GE. ALL SOIL REMOVED AS PART OF THE TREE RELOCATION ACTIVITIES SHALL BE DISPOSED OF AS TSCA SOIL AT AN OFFSITE DISPOSAL FACILITY.
  13. ABOVE GRADE/BELOW GRADE TRANSITION OF THE GROUNDWATER COLLECTION PIPE SHALL BE RELOCATED TO PARCEL 19-8-2, JUST OUTSIDE OF THE ENGINEERED BARRIER, TO AVOID LINER PENETRATIONS.
  14. WOOD STOCKADE FENCE THAT EXISTS 2 FEET SOUTH OF THE PROPERTY LINE SHALL BE RELOCATED 2 FEET NORTH TO THE PROPERTY LINE TO FACILITATE NATURAL RESOURCE RESTORATION/ENHANCEMENT ACTIVITIES.

ORIGINAL SCALE APPLIES TO 22"x34" DRAWING

30' 0 30' 60'

THIS DRAWING WAS PREPARED AT THE SCALE(S) INDICATED. INACCURACIES IN THE STATED SCALE(S) MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED. USE THE GRAPHIC SCALE BAR(S) TO DETERMINE THE ACTUAL SCALE(S) OF THIS DRAWING.

No.	Date	Revisions	Init

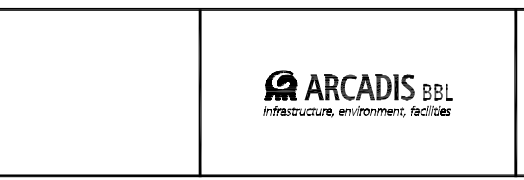
Professional Engineer's Name

Professional Engineer's No.

State: MASS Date Signed

Project Mgr. Designed by Drawn by

CAA RWP NES



GENERAL ELECTRIC COMPANY • PITTSFIELD, MASSACHUSETTS

LYMAN STREET AREA REMEDIAL ACTION

# REVISED ENGINEERED BARRIER

## FINAL GRADE PLAN

TECHNICAL DRAWINGS

ARCADIS Project No. 206.91

Date: JANUARY 2007

ARCADIS U.S., INC. 6723 TOWPATH ROAD SYR., N.Y. 13214-0066 315.446.9120

PROJECT NAME: 30916X01 30916X00  
 SHEET NO.: 19-8-12  
 DATE: 12/22/2007  
 DRAWN BY: RWP  
 CHECKED BY: NES  
 PROJECT NO.: 206.91  
 CLIENT: GENERAL ELECTRIC COMPANY  
 LOCATION: PITTSFIELD, MASSACHUSETTS  
 DRAWING NO.: 19-8-12  
 SCALE: AS SHOWN  
 SHEET SIZE: 22" X 34"





**TABLE 1  
BACKFILL SOURCE SAMPLING RESULTS**

**BROWNS PIT - DALTON, MA. SOIL FILL SAMPLING PROGRAM  
LYMAN STREET AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

<b>Parameter</b>	<b>Sample ID: Date Collected:</b>	<b>Browns-Soilfill-C1 04/02/07</b>
<b>Volatile Organics</b>		
2-Butanone		0.0040 J
Acetone		0.036
<b>PCBs</b>		
None Detected		--
<b>Semivolatile Organics</b>		
None Detected		--
<b>Inorganics</b>		
Arsenic		7.78
Barium		46.7
Beryllium		0.385 B
Cadmium		0.0767 B
Chromium		9.52
Cobalt		13.4
Copper		35.0
Lead		28.4
Mercury		0.0240
Nickel		24.4
Thallium		0.0549 B
Vanadium		14.1
Zinc		42.1

Notes:

1. Sample was collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of PCBs, volatiles, semivolatiles, and metals,
2. -- Indicates that all constituents for the parameter group were not detected.
3. Only detected constituents are summarized.

Data Qualifiers:

Organics (PCBs, volatiles, semivolatiles)

J - Indicates an estimated value less than the practical quantitation limit (PQL).

Inorganics

B - Indicates an estimated value between the instrument detection limit (IDL) and PQL.



**TABLE 2  
BACKFILL SOURCE SAMPLING RESULTS**

**PITTSFIELD SAND & GRAVEL - GRAVEL BACKFILL SAMPLING PROGRAM  
LYMAN STREET AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

<b>Parameter</b>	<b>Sample ID: Date Collected:</b>	<b>PSG-Gravel-C1 04/02/07</b>
<b>Volatile Organics</b>		
Acetone		0.048
<b>PCBs</b>		
None Detected		--
<b>Semivolatile Organics</b>		
None Detected		--
<b>Inorganics</b>		
Antimony		0.0559 B
Arsenic		6.09
Barium		34.1
Beryllium		0.295 B
Chromium		12.9
Cobalt		8.64
Copper		21.1
Lead		9.89
Mercury		0.00587 B
Nickel		16.6
Thallium		0.0414 B
Vanadium		11.8
Zinc		46.5

Notes:

1. Sample was collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of PCBs, volatiles, semivolatiles, and metals,
2. -- Indicates that all constituents for the parameter group were not detected.
3. Only detected constituents are summarized.

Data Qualifiers:

Inorganics

B - Indicates an estimated value between the instrument detection limit (IDL) and practical quantitation limit (PQL).





**Common Fill Material and Dense Grade Material from the old Water Treatment Plant (Parcel I8-23-6) Stockpile Characterization  
Analytical Results  
GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action  
Pittsfield, MA**

(Results are presented in part per million, ppm)

Location ID	OT000421	OT000422	OT000423	Region IX Preliminary Remediation Goals	MCP Wave 2 Method 1 S-1 Standard
Field Sample ID	H2-OT000421-0-6S13	H2-OT000422-0-6S13	H2-OT000423-0-6S13		
Date Collected	09/13/2006	09/13/2006	09/13/2006	Residential	Residential (lowest)
Location	Parcel I8-23-6	Parcel I8-23-6	Parcel I8-23-6		
Stockpile Location	Area 64A North	Area 64C North	Area 64C North		
Material Type	Dense Grade	Common Fill	Common Fill		
Analyte					
<b>PCBS</b>					
AROCLOR-1254	0.083	0.19	ND	N/A	2.0
AROCLOR-1260	0.11	0.34	0.043	N/A	2.0
PCB, TOTAL	0.19	0.53	0.043	2.0 (1)	2.0
<b>APP IX SEMIVOLATILES</b>					
ACENAPHTHYLENE	ND	0.017 J	ND	55*	100
ACETOPHENONE	ND	ND	0.024 J	0.49	N/A
ANTHRACENE	0.018 J	0.023 J	ND	14,000	1,000
BENZO(A)ANTHRACENE	0.083 J	0.13 J	0.043 J	0.56	7
BENZO(A)PYRENE	0.083 J (2)	0.15 J (2)	0.066 J (2)	0.056	2
BENZO(B)FLUORANTHENE	0.055 J	0.13 J	0.060 J	0.56	7
BENZO(GHI)PERYLENE	0.075 J	0.11 J	0.036 J	55*	1,000
BENZO(K)FLUORANTHENE	0.084 J	0.11 J	0.049 J	5.6	70
CHRYSENE	0.10 J	0.16 J	0.058 J	56	7
DIBENZO(A,H)ANTHRACENE	ND	0.021 J	ND	0.056	0.7
FLUORANTHENE	0.21 J	0.23 J	0.077 J	2,000	1,000
INDENO(1,2,3-C,D)PYRENE	0.047 J	0.082 J	0.028 J	0.56	7
PHENANTHRENE	0.13 J	0.12 J	0.039 J	55*	100
PYRENE	0.20 J	0.27 J	0.089 J	1,500	1,000
<b>APP IX VOLATILES</b>					
	all non-detects	all non-detects	all non-detects		
<b>METALS</b>					
ANTIMONY	1.3	1.0	1.5	30	20
ARSENIC	2.6 (2)	4.0 (2)	4.6 (2)	0.38	20
BARIUM	18.9	24.8	18.1	5,200	1,000
BERYLLIUM	0.21	0.27	0.22	150	0.7
CHROMIUM	3.9	5.8	4.7	210	30
COBALT	4.3	4.8	5.0	3,300	N/A
COPPER	7.5	8.8	8.6	2,800	N/A
LEAD	6.0	6.4	5.5	400	300
NICKEL	8.0	7.0	7.9	1,500	20
VANADIUM	4.3	6.7	5.7	520	600
ZINC	28.2	29.9	27.9	22,000	2,500
<b>INORGANICS</b>					
CORROSIVITY BY PH (ph)	8.1	8.1	8.2	N/A	N/A
CYANIDE	ND	ND	ND	11*	N/A
IGNITABILITY (deg)	>150	>150	>150	N/A	N/A
PAINT FILTER LIQUIDS (ml)	Absent	Absent	Absent	N/A	N/A
PERCENT SOLIDS (%)	96.9%	91.7%	95.3%	N/A	N/A
SULFIDE	ND	ND	ND	350*	N/A

Notes:

(1) Based on spatial averaging approach in Consent Decree - Residential soil

(2) Exceeds Region IX Preliminary Remediation Goals, however, levels are below MCP S-1 Standards for Residential Properties. Therefore, this material meets the criteria for unrestricted re-use.

\* - No EPA Region 9 PRG exists for certain noncarcinogenic PAHs (i.e., benzo(g,h,i)perylene, and phenanthrene), cyanide, or sulfide. The PRGs for naphthalene, hydrogen cyanide, and carbon disulfide, respectively, were used as surrogates.

Only detected constituents are summarized

J - Indicates an estimated value

ND - not detected



**Common Fill Material at the old Water Treatment Plant (Parcel I8-23-6) Stockpile Characterization  
Analytical Results  
GE-Pittsfield/Housatonic River Project 1.5 Mile Removal Action  
Pittsfield, MA**

(Results are presented in part per million, ppm)

Location ID	OT000410	Region IX Preliminary Remediation Goals	MCP Wave 2 Method 1 S-1 Standard
Field Sample ID	H2-OT000410-0-6G31		
Date Collected	08/31/2006	Residential	Residential
Location	Parcel I8-23-6		
Stockpile Location	Area 64B North		
Material Type	Common Fill		
Analyte			(lowest)
<b>PCBS</b>			
AROCLOR-1254	0.035	N/A	2.0
AROCLOR-1260	ND	N/A	2.0
PCB, TOTAL	0.035	2.0 (1)	2.0
<b>APP IX SEMIVOLATILES</b>			
BENZO(A)ANTHRACENE	.086 J	0.56	7
BENZO(A)PYRENE	.11 J (2)	0.056	2
BENZO(B)FLUORANTHENE	.079 J	0.56	7
BENZO(GHI)PERYLENE	.094 J	55*	1000
BENZO(K)FLUORANTHENE	.093 J	5.6	70
CHRYSENE	.095 J	56	7
DIBENZO(A,H)ANTHRACENE	.021 J	0.056	0.7
FLUORANTHENE	.14 J	2,000	1000
INDENO(1,2,3-C,D)PYRENE	.067 J	0.56	7
PHENANTHRENE	.033 J	55*	100
PYRENE	.17 J	1500	1000
<b>APP IX VOLATILES</b>			
2-BUTANONE	.0044 J	6,900	0.3
ACETONE	.032	1,400	3
CARBON DISULFIDE	.0029 J	350.0	N/A
<b>METALS</b>			
ANTIMONY	0.45	30	20
ARSENIC	3.9 (2)	0.38	20
BARIUM	19.6	5,200	1,000
BERYLLIUM	0.20	150	0.7
CADMIUM	0.20	37	2.0
CHROMIUM	4.8	210	30
COBALT	5.1	3,300	N/A
COPPER	9.0	2,800	N/A
LEAD	4.0	400	300
NICKEL	8.4	1,500	20
SELENIUM	0.74	370	400
VANADIUM	6.0	520	600
ZINC	30.9	22,000	2,500
<b>INORGANICS</b>			
CORROSIVITY BY PH (ph)	8.2	11*	N/A
CYANIDE	ND	N/A	N/A
IGNITABILITY (deg)	>150	N/A	N/A
PAINT FILTER LIQUIDS (ml)	Absent	N/A	N/A
PERCENT SOLIDS (%)	91.2%	N/A	N/A
SULFIDE	ND	350*	N/A

Notes:

(1) Based on spatial averaging approach in Consent Decree - Residential soil

(2) Exceeds Region IX Preliminary Remediation Goals, however, levels are below MCP S-1 Standards for Residential Properties. Therefore, this material meets the criteria for unrestricted re-use.

\* - No EPA Region 9 PRG exists for certain noncarcinogenic PAHs (i.e., benzo(g,h,i)perylene, and phenanthrene), cyanide, or sulfide. The PRGs for naphthalene, hydrogen cyanide, and carbon disulfide, respectively, were used as surrogates.

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