

GE 159 Plostics Avenue Pittsfield, MA 01201 USA

Transmitted via Overnight Courier

July 27, 2007

Mr. Richard Hull U.S. Environmental Protection Agency EPA New England One Congress Street, Suite 1100 Boston, Massachusetts 02114-2023

## Re: GE-Pittsfield/Housatonic River Site Hill 78 Area–Remainder (GECD160) Third Supplemental Data Letter

Dear Mr. Hull:

On March 20, 2007, the General Electric Company (GE) submitted to the U.S. Environmental Protection Agency (EPA) a Second Supplemental Data Letter (Second Supplemental Data Letter) summarizing the results of additional field activities conducted at the Hill 78 Area-Remainder Removal Action Area (RAA) in accordance with the Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site and the accompanying *Statement of Work for Removal Actions Outside the River* (SOW). Those field activities had initially been proposed in a September 18, 2006 Supplemental Data Letter (Supplemental Data Letter), which summarized the results of field activities completed in the summer of 2006 and proposed additional soil sampling to address newly-identified data needs for Hill 78 Area-Remainder. GE's Supplemental Data Letter was, in turn, conditionally approved by EPA in a letter dated January 5, 2007. The Second Supplemental Data Letter provided the results of soil sampling proposed in the Supplemental Data Letter, as modified by EPA's January 5, 2007 conditional approval letter.

EPA's January 5, 2007 letter also contained a condition requiring GE to submit a sampling plan to meet the sampling requirements of the CD along the northern boundary of the RAA. In response, GE submitted its GE's February 16, 2007 Supplemental Sampling Proposal (Supplemental Sampling Proposal). EPA conditionally approved the Supplemental Sampling Proposal and the Second Supplemental Data Letter in a letter dated April 26, 2007. GE performed supplemental soil sampling activities between June 5 and 7, 2007, including certain additional sampling activities required by EPA's April 26, 2007 letter. Following preliminary review of the initial analytical results from those supplemental investigations, GE proposed to collect soil samples from one additional sample location to further assess total polychlorinated biphenyl (PCB) concentrations near one location where the detected PCB concentrations were significantly higher than in other soil borings installed in the area. That proposal was documented in a letter to EPA dated June 26, 2007 titled Hill 78 Area-Remainder Proposed Additional Sampling Location. EPA provided conditional approval of the additional sampling proposal in a letter dated June 28, 2007 and the sampling was conducted on July 5, 2007. This letter summarizes the results of the recent supplemental soil investigations conducted at Hill 78 Area-Remainder and also provides additional information requested by EPA in its April 26, 2007 letter.

Condition No. 4 of EPA's April 26, 2007 letter required GE to modify certain utility corridors presented on Figure 1 of the Second Supplemental Data Letter. The modifications incorporated onto a revised Figure 1 (attached) include the following: (1) utility corridors along the north side of Tyler Street Extension and storm and sanitary sewers originating from the border of the Allendale School property; (2) the utility corridor in the vicinity of grid transect N7; (3) catch basins which are shown on the drawings to the south of sampling location RAA9-X3S are connected to the catch basin which is shown on the drawings slightly east of sampling location H78B-22; and (4) the catch basin to the north of RAA9-X3 is connected to the catch basin slightly northeast of sampling location RAA9-K18, and the drainage line then travels in a general northeasterly direction (Reference Figure 2-2; MCP Phase II/RCRA Facility Investigation Report for Hill 78 Area/UPESA Area 2, August, 1997).

## I. Summary of Third Supplemental Pre-Design Investigation Activities

The supplemental pre-design investigations described in the Supplemental Sampling Proposal, as approved by EPA, were performed between June 5 and 7, 2007 and additional sampling was conducted at one location on July 5, 2007. Sampling activities were conducted in accordance with GE's approved *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP). Analytical services were provided by SGS Environmental Services, Inc. of Wilmington, North Carolina.

Overall, GE collected soil samples from 12 locations during the recent supplemental pre-design investigations. A total of 30 soil samples were analyzed for PCBs and 11 soil samples were analyzed for various other constituents listed in Appendix IX of 40 CFR Part 264 (excluding pesticides and herbicides), plus three additional constituents -- benzidine, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine (hereafter referred to as Appendix IX+3). The specific sample locations, depths, and analyses are summarized on the attached Table 1 (for PCB analyses) and Table 2 (for Appendix IX+3 analyses). The samples locations are illustrated on Figure 1 and the soil boring logs are provided as Attachment A to this letter.

All of the analytical data collected during this supplemental pre-design investigation have undergone data validation in accordance with Section 7.5 of the FSP/QAPP. The results of this data validation are presented as Attachment B to this letter report. As discussed in that report, all of the soil analytical results were found to be usable. A single semi-volatile organic compound (nitrobenzene) result was rejected during validation of the analytical data from the equipment rinse blank sample due to laboratory control sample/laboratory control sample duplicate recovery deviations. Thus, the third supplemental pre-design dataset meets the data quality objectives set forth in the PDI Work Plan and the FSP/QAPP.

## II. Third Supplemental Preliminary Data Investigation Results

The analytical results for PCBs obtained during the third supplemental preliminary design investigation (PDI) are presented in Table 1. Historical data is also provided for soil borings OPCA-1 and DRA-SB-8, which will be utilized to represent sampling grid coordinate C11, per Condition No. 3c of EPA's April 26, 2007 letter. All of these data will be incorporated into the evaluations to be performed in the Conceptual Removal Design/Removal Action Work Plan for the Hill 78 Area-Remainder Removal Action (Conceptual RD/RA Work Plan) to be submitted to EPA, as discussed below. Based on the data collected, GE does not believe that any additional data collection is necessary. With regard to the samples near the outer boundary of the RAA, as shown in Table 1, no soil sample results greater than the MCP Reportable Concentration of 2 ppm were

observed in the 0- to 1- foot depth interval. At greater depths, results above the 2 ppm level were obtained at locations RAA9-B11 (2.9 ppm at the 6- to 15-foot depth) RAA9-A13 (40 ppm at the 6- to 15-foot depth), and RAA9-A13N (150 ppm at the 1- to 6-foot depth).

The analytical results for Appendix IX+3 constituents are presented in Table 2. Historical data for soil sample OPCA-1 is also included in that table, as that location will be utilized to represent location C11, as discussed above. Overall, three VOCs, 22 SVOCs, and 17 inorganic constituents were detected in one or more soil sample analyzed during the recent supplemental investigations. In addition, one or more individual PCDD/PCDF compounds were detected all 11 soil samples analyzed during this supplemental investigation. Total Toxicity Equivalency Quotients (TEQs) were calculated for the PCDD/PCDF compounds using the Toxicity Equivalency Factors (TEFs) derived by the World Health Organization (WHO). In calculating those TEQs, the concentrations of individual PCDD/PCDF compounds. The non-PCB Appendix IX+3 constituents detected were generally present at low concentrations and, based on preliminary evaluations performed by GE, GE does not anticipate conducting any non-PCB-based removals in the areas of the samples recently collected.

## III. Future Activities

GE submitted a Supplemental Sampling Plan for Re-routing of Sanitary and Storm Sewer Pipelines to EPA on February 19, 2007. That plan, which proposed sampling activities to further characterize the soils along the alignment of sanitary and storm sewers to be re-routed across Hill 78 Area-Remainder, was conditionally approved by EPA in a letter to GE dated April 5, 2007 and the approved sampling was completed in May 2007. GE submitted a Supplemental Sampling and Engineering Design Report for Re-routing of Sanitary and Storm Sewer Pipelines on July 3, 2007. That report included: (a) detailed design plans for the proposed pipelines; (b) a summary of the soil sampling data (including supporting data tables, calculations, figures, and a data validation report) from the supplemental investigations conducted along the proposed pipeline routes; and (c) a soil handling plan for soils to be excavated during the installation of the new pipelines. The soil sampling analytical results contained in that report will be incorporated, as applicable, into the evaluations to be presented in the Conceptual RD/RA Work Plan for Hill 78 Area-Remainder.

As noted above, based on the results of the third supplemental pre-design investigations, no additional soil sampling activities appear to be necessary to complete the spatial characterization of Hill 78 Area-Remainder and no new data needs were identified based on the results of the third supplemental pre-design investigations described herein or based on the soil sampling results presented in the Supplemental Sampling and Engineering Design Report for Re-routing of Sanitary and Storm Sewer Pipelines.

GE proposes to submit the Conceptual RD/RA Work Plan within a timeframe consistent with that previously proposed in GE's September 2005 *Pre-Design Investigation Report for Hill 78 Area-Remainder*, i.e., within 6 months from receipt of EPA approval of this data letter, assuming that no significant data needs are identified by GE while performing the detailed RD/RA evaluations. To address the possibility that additional data may be needed based on GE's evaluations, GE proposes to submit a letter to EPA within 4 months of approval of this data letter advising EPA whether GE believes that any additional soil sampling is necessary for purposes of RD/RA evaluations and, if such sampling is necessary, making a proposal for that sampling. If additional sampling is necessary, the letter will propose a revised schedule for submittal of the Conceptual RD/RA Work Plan, if appropriate. If GE has not identified any such data needs, the letter will advise EPA of that fact. If any other factors cause a delay in the schedule proposed above, GE will notify EPA and propose for EPA approval a revised schedule for submitting the Conceptual RD/RA Work Plan. As described in previous submissions, GE will execute an ERE for its parcels within Hill 78 Area-Remainder and, GE has an agreement with the owner of Parcel K11-7-1 that the owner will execute an ERE with regard to that parcel as well. Therefore, the Conceptual RD/RA Work Plan will be developed on the understanding that all of Hill 78 Area-Remainder will be subject to EREs.

The Conceptual RD/RA Work Plan will be consistent with Section 3.3 of the SOW and address the following topics:

- Results of the pre-design studies/investigations, including the soil samples collected to support the re-routing of the sanitary and storm sewer pipelines beneath the RAA;
- An evaluation of the areas and depths subject to response actions to meet the PCB-related Performance standards set forth in the CD and the SOW;
- An evaluation of the need for additional response actions to address non-PCB constituents and (if needed) the type of such response actions;
- An evaluation of other issues that may affect the type and extent of response actions;
- Preliminary plans and specifications to support the response actions;
- Summary of preliminary response action quantities, including soil removal, capping areas, etc.;
- Design assumptions and parameters; and
- Identification of Applicable or Relevant and Appropriate Requirements (ARARs) in accordance with Attachment B to the SOW.

Please call Andrew Silfer or me if you have any questions about this data letter or the upcoming activities at the Hill 78 Area-Remainder RAA.

Sincerely,

Richard W Catel CAB

Richard W. Gates Remediation Project Manager

Attachments

Mr. Richard Hull July 27, 2007 Page 5 of 5

cc: Tim Conway, EPA \* Dean Tagliaferro, EPA Holly Inglis, EPA (CD-ROM) Rose Howell, EPA (CD-ROM) Robert Cianciarulo, EPA\* K.C. Mitkevicius, USACE (CD-ROM) Linda Palmieri, Weston (2 copies & CD-ROM) Susan Steenstrup, MDEP (2 copies) Anna Symington, MDEP \* Jane Rothchild, MDEP \* Nancy E. Harper, MA AG \* Dale Young, MA EOEA Mayor James Ruberto, City of Pittsfield Pittsfield Commissioner of Public Health Thomas Hickey, Director, PEDA Jeffrey Bernstein, BCK Law Theresa Bowers, Gradient Michael Carroll, GE \* Rod McLaren, GE \* Andrew Silfer, GE (CD-ROM) James Nuss, ARCADIS BBL James Bieke, Goodwin Procter Tim Eglin, Purenergy I, LLC **Public Information Repositories GE** Internal Repositories

\* (Copy of letter only)

# ARCADIS BBL

Tables

#### Table 1 Soil Analytical Results - PCBs

#### Third Supplemental Data Letter Hill 78 Area-Remainder General Electric Company - Pittsfield, Massachusetts (Results are presented in dry weight parts per million, ppm)

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
RAA9-A13	0-1	6/7/2007	ND(0.039)	ND(0.039)	0.028 J	0.028 J
	1-6	6/7/2007	ND(0.038)	ND(0.038)	ND(0.038)	ND(0.038)
	6-15	6/7/2007	ND(3.7)	ND(3.7)	40	40
RAA9-A13N	0-1	7/5/2007	ND(0.044)	ND(0.044)	0.073	0.073
	1-6	7/5/2007	ND(17)	ND(17)	150	150
	6-15	7/5/2007	ND(0.035)	ND(0.035)	0.016 J	0.016 J
RAA9-A14	0-1	6/6/2007	ND(0.036)	ND(0.036)	0.010 J	0.010 J
	1-6	6/6/2007	ND(0.035) [ND(0.035)]	ND(0.035) [ND(0.035)]	0.0046 J [0.0097 J]	0.0046 J [0.0097 J]
	6-15	6/6/2007	ND(0.38)	ND(0.38)	0.59	0.59
RAA9-B11	0-1	6/6/2007	ND(0.034)	0.014 J	0.033 J	0.047 J
	1-6	6/6/2007	ND(0.034)	ND(0.034)	0.0088 J	0.0088 J
	6-15	6/6/2007	ND(0.34)	ND(0.34)	2.9	2.9
RAA9-C9	0-1	6/5/2007	ND(0.037)	ND(0.037)	0.055	0.055
	1-6	6/5/2007	ND(0.033)	ND(0.033)	0.018 J	0.018 J
	6-15	6/5/2007	ND(0.038)	ND(0.038)	0.71	0.71
RAA9-D7	0-1	6/7/2007	ND(0.037)	ND(0.037)	0.056	0.056
	1-6	6/7/2007	ND(0.035)	ND(0.035)	0.015 J	0.015 J
	6-15	6/7/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
RAA9-D9	0-1	6/7/2007	ND(0.044)	0.13	0.65	0.78
	1-6	6/7/2007	ND(0.037)	ND(0.037)	0.048	0.048
	6-15	6/7/2007	ND(0.039)	ND(0.039)	ND(0.039)	ND(0.039)
RAA9-E5	0-1	6/5/2007	ND(0.034)	ND(0.034)	0.026 J	0.026 J
	1-6	6/5/2007	ND(0.035) [ND(0.033)]	ND(0.035) [ND(0.033)]	ND(0.035) [ND(0.033)]	ND(0.035) [ND(0.033)]
	6-15	6/5/2007	ND(0.034)	ND(0.034)	ND(0.034)	ND(0.034)
RAA9-F3	0-1	6/5/2007	ND(0.033)	0.14	0.041	0.181
	1-6	6/5/2007	ND(0.035)	0.016 J	0.0078 J	0.0238 J
	6-15	6/5/2007	ND(0.036)	ND(0.036)	ND(0.036)	ND(0.036)
RAA9-I6	0-1	6/7/2007	ND(0.034)	0.32	0.30	0.62
	1-6	6/7/2007	ND(0.34)	2.2	0.38	2.58
	6-15	6/7/2007	ND(0.035)	ND(0.035)	ND(0.035)	ND(0.035)
Historical Data F	Representing Grid	d Coordinate C	11			
	0-1	5/26/1999	ND(0.043)	ND(0.043)	ND(0.043)	ND(0.043)
OPCA-1	1-6	5/26/1999	ND(0.039)	ND(0.039)	0.093	0.093
	6-15	5/26/1999	ND(0.038)	ND(0.038)	0.045	0.045
OPCA-SW- DRA-SB-8	0-1	5/30/2000	ND(0.042)	ND(0.042)	0.38	0.38

#### Notes:

1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of PCBs.

2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield,

Massachusetts, ARCADIS BBL (approved March 15, 2007 and re-submitted March 30, 2007).

3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

4. Field duplicate sample results are presented in brackets.

5. Historical data from samples OPCA-1 and OPCA-SW-DRA-SB-8 previously presented in Pre-Design Investigation Report for Hill 78-Remainder, September 2005.

#### Data Qualifiers:

J - Indicates that the associated numerical value is an estimated concentration.

## Third Supplemental Data Letter

Hill 78 Area-Remainder

General Electric Company - Pittsfield, Massachusetts (Results are presented in dry weight parts per million, ppm)

Sa	ample ID: RAA9-A13	RAA9-A13	RAA9-A14	RAA9-B11	RAA9-B11
Sample Dep		8-10	0-1	1-3	1-6
	collected: 06/07/07	06/07/07	06/06/07	06/06/07	06/06/07
Volatile Organics			-		1
2-Butanone	NA	0.0040 J	0.0047 J	ND(0.0037)	NA
Acetone	NA	0.016	0.032 J	0.0042 J	NA
Methylene Chloride	NA	ND(0.0051)	0.033	0.012	NA
Semivolatile Organics					
1,2,4-Trichlorobenzene	0.13 J	NA	ND(0.36)	NA	ND(0.34)
1,3-Dichlorobenzene	0.045 J	NA	ND(0.36)	NA	ND(0.34)
1,4-Dichlorobenzene	0.30 J	NA	ND(0.36)	NA	ND(0.34)
2-Methylnaphthalene	ND(0.37)	NA	ND(0.36)	NA	ND(0.34)
Acenaphthene	ND(0.37)	NA	ND(0.36)	NA	ND(0.34)
Acenaphthylene	ND(0.37)	NA	ND(0.36)	NA	ND(0.34)
Anthracene	ND(0.37)	NA	ND(0.36)	NA	ND(0.34)
Benzidine	ND(0.75) J	NA	ND(0.71) J	NA	ND(0.68) J
Benzo(a)anthracene	ND(0.37)	NA	ND(0.36)	NA	ND(0.34)
Benzo(a)pyrene	0.28 J	NA	ND(0.36)	NA	ND(0.34)
Benzo(b)fluoranthene	0.11 J	NA	ND(0.36)	NA	ND(0.34)
Benzo(g,h,i)perylene	ND(0.37)	NA	ND(0.36)	NA	ND(0.34)
Benzo(k)fluoranthene	ND(0.37) J	NA	ND(0.36) J	NA	ND(0.34) J
bis(2-Ethylhexyl)phthalate	0.079 J	NA	0.057 J	NA	ND(0.34)
Chrysene	ND(0.37)	NA	ND(0.36)	NA	ND(0.34)
Dibenzo(a,h)anthracene	ND(0.37) J	NA NA	ND(0.36) J	NA	ND(0.34) J ND(0.34)
Dibenzofuran	ND(0.37) 0.064 J	NA NA	ND(0.36)	NA NA	
Fluoranthene		NA NA	ND(0.36) ND(0.36)		ND(0.34) ND(0.34)
Fluorene	ND(0.37) ND(0.37) J	NA NA	ND(0.36)	NA NA	ND(0.34) ND(0.34)
Indeno(1,2,3-cd)pyrene Naphthalene	ND(0.37) J	NA	ND(0.36)	NA	ND(0.34)
Phenanthrene	0.049 J	NA NA	ND(0.36)	NA	ND(0.34)
Pyrene	ND(0.37)	NA	ND(0.36)	NA	ND(0.34)
Furans	ND(0.37)	IN/A	ND(0.50)	IN/A	ND(0.54)
2,3,7,8-TCDF	0.0000065 Y	NA	0.0000066 J	NA	0.0000046 J
TCDFs (total)	0.000066	NA	0.0000000000000000000000000000000000000	NA	0.0000011
1,2,3,7,8-PeCDF	0.0000045 J	NA	ND(0.00000058)	NA	ND(0.00000055)
2,3,4,7,8-PeCDF	0.000019	NA	0.00000069 J	NA	ND(0.00000055)
PeCDFs (total)	0.00028	NA	0.0000062	NA	0.0000027 J
1,2,3,4,7,8-HxCDF	0.000048	NA	0.0000017 J	NA	0.0000018 J
1,2,3,6,7,8-HxCDF	0.000014	NA	ND(0.0000062) X	NA	ND(0.00000055)
1,2,3,7,8,9-HxCDF	0.0000057	NA	ND(0.00000058)	NA	ND(0.00000055)
2,3,4,6,7,8-HxCDF	0.000036	NA	ND(0.00000058)	NA	ND(0.00000055)
HxCDFs (total)	0.00048	NA	0.0000065	NA	0.0000062
1,2,3,4,6,7,8-HpCDF	0.000091	NA	0.0000051 J	NA	0.0000054 J
1,2,3,4,7,8,9-HpCDF	0.000032	NA	ND(0.0000058)	NA	ND(0.00000055)
HpCDFs (total)	0.00024	NA	0.000064	NA	0.0000065
OCDF (	0.00020	NA	0.0000046 J	NA	0.0000040 J
Dioxins			•		
2,3,7,8-TCDD	ND(0.0000030	) X NA	ND(0.0000040)	NA	ND(0.0000035)
TCDDs (total)	0.000069	NA	ND(0.0000040)	NA	ND(0.0000035)
1,2,3,7,8-PeCDD	0.000021 J	NA	ND(0.0000058)	NA	ND(0.00000055)
PeCDDs (total)	0.000016	NA	ND(0.0000058)	NA	ND(0.0000055)
1,2,3,4,7,8-HxCDD	0.0000013 J	NA	ND(0.0000058)	NA	ND(0.0000055)
1,2,3,6,7,8-HxCDD	0.000025 J	NA	ND(0.0000058)	NA	ND(0.0000055)
1,2,3,7,8,9-HxCDD	0.0000042 J	NA	ND(0.00000058)	NA	ND(0.00000055)
HxCDDs (total)	0.000034	NA	0.0000072 J	NA	0.00000074 J
1,2,3,4,6,7,8-HpCDD	0.000011	NA	0.000022 J	NA	0.0000077 J
HpCDDs (total)	0.000024	NA	0.000045 J	NA	0.0000018 J
OCDD (	0.000040	NA	0.000014	NA	0.000065 J
Total TEQs (WHO TEFs)					

## Third Supplemental Data Letter

Hill 78 Area-Remainder

General Electric Company - Pittsfield, Massachusetts (Results are presented in dry weight parts per million, ppm)

	Sample ID:	RAA9-A13	RAA9-A13	RAA9-A14	RAA9-B11	RAA9-B11
	Sample Depth(Feet):	6-15	8-10	0-1	1-3	1-6
Parameter	Date Collected:	06/07/07	06/07/07	06/06/07	06/06/07	06/06/07
Inorganics						
Arsenic		4.85	NA	7.07	NA	8.57
Barium		26.2 J	NA	37.4	NA	35.0
Beryllium		ND(1.19) J	NA	ND(1.15) J	NA	ND(0.934) J
Cadmium		ND(1.19)	NA	ND(1.15) J	NA	1.06 J
Chromium		7.71	NA	12.0	NA	11.1
Cobalt		5.93	NA	9.79	NA	10.7
Copper		12.3	NA	19.4	NA	26.6
Lead		7.88	NA	18.9	NA	14.6
Mercury		0.0107 B	NA	0.0171 B	NA	0.0155 B
Nickel		11.5	NA	19.2	NA	19.9
Thallium		ND(1.19)	NA	1.25 J	NA	ND(0.934) J
Tin		4.43	NA	ND(1.15)	NA	0.789 B
Vanadium		6.16	NA	12.5	NA	10.4
Zinc		36.9	NA	62.5 J	NA	65.2 J

### Third Supplemental Data Letter

Hill 78 Area-Remainder

General Electric Company - Pittsfield, Massachusetts

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

Sample ID:	RAA9-C9	RAA9-D7	RAA9-D7	RAA9-D9	RAA9-D9
Sample Depth(Feet):		6-15	10-12	1-6	4-6
Parameter Date Collected:	06/05/07	06/07/07	06/07/07	06/07/07	06/07/07
Volatile Organics				-	
2-Butanone	ND(0.0062) J	NA	0.0076	NA	ND(0.0045)
Acetone	0.026 J	NA	0.035	NA	0.010
Methylene Chloride	0.011 J	NA	ND(0.0053)	NA	ND(0.0045)
Semivolatile Organics					
1,2,4-Trichlorobenzene	ND(0.39)	ND(0.34)	NA	ND(0.37)	NA
1,3-Dichlorobenzene	ND(0.39)	ND(0.34)	NA	ND(0.37)	NA
1,4-Dichlorobenzene	ND(0.39)	ND(0.34)	NA	ND(0.37)	NA
2-Methylnaphthalene	ND(0.39)	ND(0.34)	NA	ND(0.37)	NA
Acenaphthene	ND(0.39)	ND(0.34)	NA	ND(0.37)	NA
Acenaphthylene	ND(0.39)	ND(0.34)	NA NA	ND(0.37)	NA NA
Anthracene	ND(0.39)	ND(0.34)	NA NA	ND(0.37)	NA
Benzidine	ND(0.78) J	ND(0.68) J ND(0.34)	NA	ND(0.73) J ND(0.37)	NA
Benzo(a)anthracene	ND(0.39) 0.27 J	ND(0.34)	NA NA	ND(0.37) ND(0.37)	NA
Benzo(a)pyrene Benzo(b)fluoranthene	0.27 J 0.14 J	ND(0.34) ND(0.34)	NA NA	ND(0.37) ND(0.37)	NA
Benzo(g,h,i)perylene	0.14 J ND(0.39)	ND(0.34)	NA NA	ND(0.37) ND(0.37)	NA
Benzo(g,n,))perviene Benzo(k)fluoranthene	ND(0.39)	ND(0.34) ND(0.34) J	NA	ND(0.37) ND(0.37) J	NA
bis(2-Ethylhexyl)phthalate	0.20 J	0.096 J	NA	0.055 J	NA
Chrysene	0.043 J	ND(0.34)	NA	ND(0.37)	NA
Dibenzo(a,h)anthracene	ND(0.39)	ND(0.34) J	NA	ND(0.37) J	NA
Dibenzofuran	ND(0.39)	ND(0.34)	NA	ND(0.37)	NA
Fluoranthene	0.075 J	ND(0.34)	NA	ND(0.37)	NA
Fluorene	ND(0.39)	ND(0.34)	NA	ND(0.37)	NA
Indeno(1,2,3-cd)pyrene	ND(0.39)	ND(0.34) J	NA	ND(0.37) J	NA
Naphthalene	ND(0.39)	ND(0.34)	NA	ND(0.37)	NA
Phenanthrene	ND(0.39)	ND(0.34)	NA	ND(0.37)	NA
Pyrene	ND(0.39)	ND(0.34)	NA	ND(0.37)	NA
Furans					
2.3,7,8-TCDF	0.0000011 J	0.0000018 J	NA	0.0000075 J	NA
TCDFs (total)	0.000014	0.0000018 J	NA	0.0000040	NA
1,2,3,7,8-PeCDF	0.0000013 J	ND(0.0000051)	NA	ND(0.00000050)	NA
2,3,4,7,8-PeCDF	0.0000039 J	ND(0.0000051)	NA	0.00000070 J	NA
PeCDFs (total)	0.000035	0.0000062 J	NA	0.000012	NA
1,2,3,4,7,8-HxCDF	0.000033	0.0000061	NA	0.0000054 J	NA
1,2,3,6,7,8-HxCDF	0.0000070	0.0000012 J	NA	ND(0.0000050)	NA
1,2,3,7,8,9-HxCDF	0.0000058 J	ND(0.0000051)	NA	ND(0.0000050)	NA
2,3,4,6,7,8-HxCDF	0.0000026 J	ND(0.0000051)	NA	0.0000068 J	NA
HxCDFs (total)	0.000079	0.000010	NA	0.000095	NA
1,2,3,4,6,7,8-HpCDF	0.00012	0.000024	NA	0.0000027 J	NA
1,2,3,4,7,8,9-HpCDF	0.000026 J	0.0000072 J	NA	ND(0.0000050)	NA
HpCDFs (total)	0.00013	0.000028	NA	0.0000055	NA
OCDF	0.00019	0.000021	NA	0.000050 J	NA
Dioxins					
2,3,7,8-TCDD	ND(0.0000051)	ND(0.0000025)	NA	ND(0.0000034)	NA
TCDDs (total)	0.0000052 J	ND(0.0000025)	NA	ND(0.0000034)	NA
1,2,3,7,8-PeCDD	ND(0.00000055)	ND(0.0000051)	NA	ND(0.0000050)	NA
PeCDDs (total)	0.000023 J	ND(0.0000051)	NA	ND(0.0000050)	NA
1,2,3,4,7,8-HxCDD	ND(0.00000055)	ND(0.0000051)	NA	ND(0.0000050)	NA
1,2,3,6,7,8-HxCDD	ND(0.0000055)	ND(0.0000051)	NA	ND(0.0000050)	NA
1,2,3,7,8,9-HxCDD	ND(0.00000055)	ND(0.0000051)	NA	ND(0.0000050)	NA
HxCDDs (total)	0.0000036 J	ND(0.0000051)	NA	0.0000022 J	NA
1,2,3,4,6,7,8-HpCDD	0.0000052 J	ND(0.0000051)	NA	0.0000051	NA
HpCDDs (total)	0.000012	ND(0.0000051)	NA	0.000012	NA
OCDD	0.000041	0.0000013 J	NA	0.000048	NA

### Third Supplemental Data Letter

Hill 78 Area-Remainder

General Electric Company - Pittsfield, Massachusetts

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

	Sample ID:	RAA9-C9	RAA9-D7	RAA9-D7	RAA9-D9	RAA9-D9
Parameter	Sample Depth(Feet): Date Collected:	0-1 06/05/07	6-15 06/07/07	10-12 06/07/07	1-6 06/07/07	4-6 06/07/07
Inorganics						
Arsenic		12.3	7.93	NA	2.74	NA
Barium		48.7	20.5 J	NA	16.9 J	NA
Beryllium		ND(1.09) J	ND(1.03) J	NA	ND(1.21) J	NA
Cadmium		ND(1.09)	ND(1.03)	NA	ND(1.21)	NA
Chromium		14.6	10.2	NA	5.22	NA
Cobalt		14.7	8.28	NA	2.52	NA
Copper		31.9	25.4	NA	8.88	NA
Lead		28.9	8.41	NA	6.03	NA
Mercury		0.0264	0.0188 B	NA	0.0116 B	NA
Nickel		25.8	16.9	NA	7.96	NA
Thallium		ND(1.09) J	ND(1.03)	NA	ND(1.21)	NA
Tin		ND(1.09) J	ND(1.03) J	NA	ND(1.21) J	NA
Vanadium		14.5	9.47	NA	5.88 B	NA
Zinc		84.7	51.1	NA	25.3	NA

## Third Supplemental Data Letter

Hill 78 Area-Remainder General Electric Company - Pittsfield, Massachusetts

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

Sample ID	RAA9-E5	RAA9-E5	RAA9-F3
Sample Depth(Feet)		4-6	0-1
Parameter Date Collected	: 06/05/07	06/05/07	06/05/07
Volatile Organics			
2-Butanone	NA	ND(0.0056) J [ND(0.0053) J]	0.0060 J
Acetone	NA	ND(0.0056) J [ND(0.0053) J]	0.038 J
Methylene Chloride	NA	ND(0.0056) J [0.020 J]	ND(0.0053) J
Semivolatile Organics			
1,2,4-Trichlorobenzene	ND(0.34) [ND(0.34)]	NA	ND(0.33)
1,3-Dichlorobenzene	ND(0.34) [ND(0.34)]	NA	ND(0.33)
1,4-Dichlorobenzene	ND(0.34) [ND(0.34)]	NA	ND(0.33)
2-Methylnaphthalene	ND(0.34) [ND(0.34)]	NA	ND(0.33)
Acenaphthene	ND(0.34) [ND(0.34)]	NA	ND(0.33)
Acenaphthylene	ND(0.34) [ND(0.34)]	NA	ND(0.33)
Anthracene	ND(0.34) [ND(0.34)]	NA	ND(0.33)
Benzidine	ND(0.67) J [ND(0.68) J]	NA	ND(0.66) J
Benzo(a)anthracene	ND(0.34) [ND(0.34)]	NA	ND(0.33)
Benzo(a)pyrene	ND(0.34) [ND(0.34)]	NA	0.25 J
Benzo(b)fluoranthene	ND(0.34) [ND(0.34)]	NA NA	0.16 J
Benzo(g,h,i)perylene	ND(0.34) [ND(0.34)]		ND(0.33)
Benzo(k)fluoranthene	ND(0.34) [ND(0.34)]	NA	ND(0.33)
bis(2-Ethylhexyl)phthalate	ND(0.34) [ND(0.34)] ND(0.34) [ND(0.34)]	NA	0.059 J 0.066 J
Chrysene		NA	
Dibenzo(a,h)anthracene Dibenzofuran	ND(0.34) [ND(0.34)]	NA NA	ND(0.33)
Fluoranthene	ND(0.34) [ND(0.34)]		ND(0.33)
	ND(0.34) [ND(0.34)]	NA NA	0.12 J
Fluorene Indeno(1,2,3-cd)pyrene	ND(0.34) [ND(0.34)] ND(0.34) [ND(0.34)]	NA NA	ND(0.33) ND(0.33)
Naphthalene	ND(0.34) [ND(0.34)] ND(0.34) [ND(0.34)]	NA NA	ND(0.33)
Phenanthrene	ND(0.34) [ND(0.34)] ND(0.34) [ND(0.34)]	NA NA	0.056 J
Pyrene	ND(0.34) [ND(0.34)]	NA NA	0.050 J 0.11 J
Furans		INA.	0.110
2,3,7,8-TCDF	ND(0.0000025) [ND(0.0000036)]	NA	0.0000016 Y
TCDFs (total)	0.00000026 J [ND(0.00000036)]	NA NA	0.0000090
1,2,3,7,8-PeCDF	ND(0.00000044) [ND(0.00000053)]	NA	0.00000072 J
2,3,4,7,8-PeCDF	ND(0.00000044) [ND(0.00000053)]	NA	0.0000012 J
PeCDFs (total)	ND(0.00000044) [ND(0.00000053)]	NA NA	0.0000133
1.2.3.4.7.8-HxCDF	0.0000016 J [0.0000012 J]	NA	0.000012
1,2,3,6,7,8-HxCDF	ND(0.00000044) [ND(0.00000053)]	NA	0.0000031 J
1,2,3,7,8,9-HxCDF	ND(0.00000044) [ND(0.00000053)]	NA	ND(0.00000052)
2,3,4,6,7,8-HxCDF	ND(0.00000044) [ND(0.00000053)]	NA	0.0000012 J
HxCDFs (total)	0.0000024 J [0.0000017 J]	NA	0.000032
1,2,3,4,6,7,8-HpCDF	0.0000058 [0.000040 J]	NA	0.000050
1,2,3,4,7,8,9-HpCDF	ND(0.00000044) [ND(0.00000053)]	NA	0.0000017 J
HpCDFs (total)	0.0000058 [0.000040 J]	NA	0.000056
OCDF	0.0000064 J [0.0000033 J]	NA	0.000045
Dioxins			
2,3,7,8-TCDD	ND(0.00000056) [ND(0.00000067)]	NA	ND(0.0000040)
TCDDs (total)	ND(0.00000056) [ND(0.00000067)]	NA	ND(0.00000040)
1,2,3,7,8-PeCDD	ND(0.00000044) [ND(0.00000053)]	NA	ND(0.00000052)
PeCDDs (total)	ND(0.00000044) [ND(0.00000053)]	NA	ND(0.0000052)
1,2,3,4,7,8-HxCDD	ND(0.00000044) [ND(0.00000053)]	NA	ND(0.00000052)
1,2,3,6,7,8-HxCDD	ND(0.00000044) [ND(0.00000053)]	NA	ND(0.00000052)
1,2,3,7,8,9-HxCDD	ND(0.00000044) [ND(0.00000053)]	NA	ND(0.00000052)
HxCDDs (total)	ND(0.00000044) [ND(0.00000053)]	NA	0.0000087 J
1,2,3,4,6,7,8-HpCDD	ND(0.00000044) [ND(0.00000053)]	NA	0.0000040 J
HpCDDs (total)	ND(0.00000044) [ND(0.00000053)]	NA	0.000085
OCDD	0.0000011 J [0.000011 J]	NA	0.000028
		NA	0.000038

#### Third Supplemental Data Letter Hill 78 Area-Remainder General Electric Company - Pittsfield, Massachusetts (Results are presented in dry weight parts per million, ppm)

	Sample ID:	RAA9-E5	RAA9-E5	RAA9-F3
	Sample Depth(Feet):	1-6	4-6	0-1
Parameter	Date Collected:	06/05/07	06/05/07	06/05/07
Inorganics				
Arsenic		9.41 [8.04]	NA	8.44
Barium		38.0 [22.3]	NA	ND(1.11) J
Beryllium		ND(0.986) J [ND(1.13) J]	NA	ND(1.11) J
Cadmium		ND(0.986) [ND(1.13)]	NA	ND(1.11) J
Chromium		8.81 [7.72]	NA	12.3
Cobalt		13.6 [10.5]	NA	9.03
Copper		21.4 [20.2]	NA	23.3
Lead		10.0 [10.5]	NA	22.6
Mercury		0.00692 B [0.00680 B]	NA	0.0270
Nickel		18.2 [15.4]	NA	17.3
Thallium		ND(0.986) J [ND(1.13) J]	NA	ND(1.11) J
Tin		ND(0.986) J [ND(1.13) J]	NA	ND(1.11) J
Vanadium		7.19 [6.83]	NA	10.4
Zinc		56.7 [56.9]	NA	79.3

## Third Supplemental Data Letter

Hill 78 Area-Remainder

General Electric Company - Pittsfield, Massachusetts (Results are presented in dry weight parts per million, ppm)

Sample ID:	RAA9-G2S	RAA9-I2	RAA9-I6	RAA9-I6	OPCA-1
Sample Depth(Feet):	0-1	0-1	1-6	2-4	0-1
Parameter Date Collected:	06/06/07	06/06/07	06/07/07	06/07/07	05/26/99
Volatile Organics		0.00//		0.0070	
2-Butanone	0.0056	0.0041 J	NA	0.0078	ND(3.6)
Acetone	0.047 J	0.023 J	NA	0.043	ND(3.6)
Methylene Chloride	0.033	0.031	NA	ND(0.0050)	ND(0.18)
Semivolatile Organics				NIA	
1,2,4-Trichlorobenzene 1,3-Dichlorobenzene	ND(0.35)	ND(7.0)	ND(0.34)	NA NA	ND(0.42)
,	ND(0.35)	ND(7.0)	ND(0.34)	NA	ND(0.42)
1,4-Dichlorobenzene 2-Methylnaphthalene	ND(0.35) ND(0.35)	ND(7.0) 3.5 J	ND(0.34) ND(0.34)	NA	ND(0.42) ND(0.42)
Acenaphthene	ND(0.35)	3.0 J	ND(0.34)	NA	ND(0.42)
Acenaphthylene	0.26 J	7.7	ND(0.34)	NA	ND(0.42)
Anthracene	0.20 J	14	ND(0.34)	NA	ND(0.42)
Benzidine	ND(0.71) J	14 J	ND(0.68) J	NA	ND(0.42)
Benzo(a)anthracene	1.3	42	ND(0.34)	NA	ND(0.42)
Benzo(a)pyrene	1.3	36	ND(0.34)	NA	ND(0.42)
Benzo(b)fluoranthene	1.4	38	ND(0.34)	NA	ND(0.42)
Benzo(g,h,i)perylene	0.76	19 J	ND(0.34)	NA	ND(0.42)
Benzo(k)fluoranthene	0.62 J	18 J	ND(0.34) J	NA	ND(0.42)
bis(2-Ethylhexyl)phthalate	ND(0.35)	ND(7.0)	ND(0.34)	NA	ND(0.42)
Chrysene	1.5	45	ND(0.34)	NA	ND(0.42)
Dibenzo(a,h)anthracene	0.40 J	8.0	ND(0.34) J	NA	ND(0.85)
Dibenzofuran	ND(0.35)	4.0 J	ND(0.34)	NA	ND(0.42)
Fluoranthene	1.9	83	ND(0.34)	NA	ND(0.42)
Fluorene	0.078 J	11	ND(0.34)	NA	ND(0.42)
Indeno(1,2,3-cd)pyrene	0.79	19 J	ND(0.34) J	NA	ND(0.85)
Naphthalene	0.032 J	2.0 J	ND(0.34)	NA	ND(0.42)
Phenanthrene	0.56	57	ND(0.34)	NA	ND(0.42)
Pyrene	1.9	56	ND(0.34)	NA	ND(0.42)
Furans					
2,3,7,8-TCDF	0.0000061 Y	0.000045 Y	0.0000026 Y	NA	0.000037
TCDFs (total)	0.000037 Q	0.00029 Q	0.000031	NA	0.000023
1,2,3,7,8-PeCDF	0.0000021 J	0.000012 JQ	0.0000033 J	NA	ND(0.0000010) X
2,3,4,7,8-PeCDF	0.0000030 J	0.000036 JQ	0.0000086	NA	0.0000016
PeCDFs (total)	0.000040 Q	0.00046 Q	0.00011	NA	0.000021
1,2,3,4,7,8-HxCDF	0.0000023 J	0.000021 J	0.00012	NA	0.0000042
1,2,3,6,7,8-HxCDF	0.0000012 J	0.000015 J	0.000027	NA	0.0000021 J
1,2,3,7,8,9-HxCDF	ND(0.00000055)	0.0000047 J	0.0000017 J	NA	ND(0.00000015) X
2,3,4,6,7,8-HxCDF	0.0000021 J	0.000037 J	0.000012	NA	0.0000016 J
HxCDFs (total)	0.000028	0.00059	0.00031	NA	0.000020
1,2,3,4,6,7,8-HpCDF	0.0000051 J	0.000081	0.00040	NA	0.0000072
1,2,3,4,7,8,9-HpCDF	0.0000055 J	0.000010 J	0.000014	NA	0.0000011 J
HpCDFs (total)	0.0000098	0.00026	0.00047	NA	0.000013
OCDF	0.0000057 J	0.00020	0.00034	NA	0.0000033 J
Dioxins					
2,3,7,8-TCDD	ND(0.00000040)	ND(0.0000052) Q	ND(0.0000034)	NA	0.00000017 J
TCDDs (total)	0.0000046 J	ND(0.0000052) Q	ND(0.0000034)	NA	0.0000013
1,2,3,7,8-PeCDD	ND(0.0000055)	ND(0.0000028) Q	ND(0.00000047)	NA	0.0000054 J
PeCDDs (total)	0.0000062 JQ	0.0000036 JQ	ND(0.00000047)	NA	0.0000014
1,2,3,4,7,8-HxCDD	ND(0.00000055)	ND(0.000035)	ND(0.0000047)	NA	ND(0.0000043) X
1,2,3,6,7,8-HxCDD	ND(0.0000055)	0.000082 J	ND(0.0000047)	NA	0.0000057 J
1,2,3,7,8,9-HxCDD	ND(0.00000055)	ND(0.0000035)	ND(0.00000047)	NA	0.0000093 J
HxCDDs (total)	0.000029 J	0.000081	0.0000012 J	NA	0.0000043
1,2,3,4,6,7,8-HpCDD	0.000048 J	0.00026	0.0000015 J	NA	0.000029 J
HpCDDs (total)	0.000010	0.0010	0.000030 J	NA	0.0000059
OCDD	0.000036	0.0017 J	0.0000072 J	NA	0.000011
Total TEQs (WHO TEFs)	0.0000035	0.000039	0.000026	NA	0.000030

## Table 2 Soil Analytical Results - Appendix IX+3 Constituents

## Third Supplemental Data Letter

Hill 78 Area-Remainder

General Electric Company - Pittsfield, Massachusetts (Results are presented in dry weight parts per million, ppm)

Sample ID:	RAA9-G2S	RAA9-I2	RAA9-I6	RAA9-I6	OPCA-1
Sample Depth(Feet):	0-1	0-1	1-6	2-4	0-1
Parameter Date Collected:	06/06/07	06/06/07	06/07/07	06/07/07	05/26/99
Inorganics					
Arsenic	10.3	6.17	10.5	NA	4.70
Barium	34.2	24.0	25.1 J	NA	58.3
Beryllium	ND(1.15) J	0.581 J	ND(0.957)J	NA	0.390
Cadmium	ND(1.15) J	ND(1.02) J	ND(0.957)	NA	0.660
Chromium	12.7	11.1	10.0	NA	14.5
Cobalt	11.5	6.48	9.64	NA	10.3
Copper	24.7	160	29.0	NA	21.9
Lead	27.3	72.0	11.4	NA	11.4
Mercury	0.0309	0.0486	0.0262	NA	ND(0.260)
Nickel	22.0	13.5	19.9	NA	19.9
Thallium	0.955 J	ND(1.02) J	ND(0.957) J	NA	ND(0.970)
Tin	ND(1.15)	8.36	ND(0.957) J	NA	ND(58.3)
Vanadium	12.5	9.74	7.92	NA	17.0
Zinc	87.7 J	125 J	53.7	NA	59.0

Third Supplemental Data Letter Hill 78 Area-Remainder General Electric Company - Pittsfield, Massachusetts (Results are presented in dry weight parts per million, ppm)

#### Notes:

- 1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of Appendix IX+3 constituents.
- Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS BBL (approved March 15, 2007 and re-submitted March 30, 2007).
- 3. NA Not Analyzed.
- 4. ND Analyte was not detected. The number in parentheses is the associated detection limit.
- Total 2,3,7,8-TCDD toxicity equivalents (TEQs) were calculated using Toxicity Equivalency Factors (TEFs) derived by the World Health Organization (WHO) and published by Van den Berg et al. in Environmental Health Perspectives 106(2), December 1998.
- 6. With the exception of dioxin/furans, only those constituents detected in one or more samples are summarized.
- 7. Historical data from sample OPCA-1 previously presented in Pre-Design Investigation Report for Hill 78-Remainder, September 2005.

#### Data Qualifiers:

Organics (volatiles, semivolatiles, dioxin/furans)

- J Indicates that the associated numerical value is an estimated concentration.
- Q Indicates the presence of quantitative interferences.
- X Estimated maximum possible concentration.
- Y 2,3,7,8-TCDF results have been confirmed on a DB-225 column.

**Inorganics** 

- B Indicates an estimated value between the instrument detection limit (IDL) and (PQL).
- J Indicates that the associated numerical value is an estimated concentration.

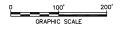
# ARCADIS BBL

Figure



	LEGEND:
K11-7-2	PROPERTY ID
	APPROXIMATE SITE BOUNDARY
rener u	HILL 78 AND BUILDING 71 CONSOLIDATION AREAS (NOT PART OF HILL 78 AREA- REMAINDER RAA)
	PROPERTY LINE
	EASEMENT LINE
x	FENCE LINE
	EDGE OF SWALE
	INDEX ELEVATION CONTOUR LINE INTERMEDIATE ELEVATION CONTOUR LINE
	EDGE OF WOODS
۵	LIGHT POLE
<i></i>	UTILITY POLE
•	BUSH/TREE/SHRUB
	GAS MARKER
٠	MANHOLE
•	SANITARY MANHOLE CATCH BASIN
•	DRAIN MANHOLE
	ELECTRIC MANHOLE
Å	WATER VALVE
¥	FIRE HYDRANT
они	OVERHEAD WIRE
D	STORM SEWER (DRAINAGE) LINE
E	UNDERGROUND ELECTRIC LINE
s	SANITARY LINE
w	WATER LINE
G	GAS LINE
	GE-OWNED PAVED AREA
	BUILDING/STRUCTURE
	APPROXIMATE LOCATION OF BAND SURROUNDING SUBSURFACE UTILITIES (25 FEET WIDE ON EACH SIDE OF UTILITY)
78-7 ●	EXISTING PCB SOIL BORING LOCATION
H78SS-1 🔺	EXISTING PCB SURFACE SAMPLE LOCATION
	EXISTING SURFACE WATER SAMPLE LOCATION (PCB & APPENDIX IX+3)
	EXISTING SEDIMENT SAMPLE LOCATION (PCB & APPENDIX IX+3)
RAA9-X5 🔵	3RD SUPPLEMENTAL SAMPLING LOCATION
(1-6)	APPENDIX IX+3 SAMPLE DEPTH
SB-1 ()	BORING LOCATIONS FOR RE-ROUTING OF SANITARY AND STORM PIPELINES
RAA9-X6 ●	CONTINGENCY SOIL BORING LOCATION (NOT ANALYZED)
NOTES:	
BY FORESIGHT LA LOCATIONS BASED	ON ELECTRONIC FILE (S2149W01.DWG) OF SURVEY ND SEVICES, DATED 3/16/06. UTILITY O ON AVAILABLE RECORD DATA AND VISIBLE ND ARE NOT REPRESENTED AS BEING EXACT OR

## SAMPLES FROM ALL LOCATIONS WILL BE COLLECTED FOR PCB ANALYSIS FROM DEPTHS OF 0-1, 1-6, AND 6-15 FEET, EXCEPT FOR LOCATIONS RAA9-G2S AND RAA9-12 (WHERE NO PCB ANALYSES ARE REQUIRED). 2.



GENERAL ELECTRIC COMPANY PITTSFIELD, MASSACHUSETTS SUPPLEMENTAL PRE-DESIGN INVESTIGATION FOR HILL 78 AREA-REMAINDER SUPPLEMENTAL SOIL **CHARACTERIZATION** SAMPLE LOCATIONS



# ARCADIS BBL

Attachments

# ARCADIS BBL

Attachment A

Soil Boring Logs

Date Start/Finish: 6/7/2007 Drilling Company: ABBL Driller's Name: Paulo Filippetti Drilling Method: AMS PowerProbe Auger Size: Rig Type: Sample Method: 2" OD x 4' L Macrocore							Easting: 136167.2 Casing Elevation: NA Borehole Depth: 15' Surface Elevation: 1015.7	Boring ID: RAA9-A13 Client: General Electric Company Location: Pittsfield, Massachusetts
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
-							Dark-brown fine SAND and SILT, trace Roots.	
10	15 -	1	0-1		0.0			
	_	2	1-3	3.5	0,0		Dark-gray fine SAND and SILT, Irace fine to medium Gravel.	
	-	3	3-4		0.0			Borehole backfilled with Bentonite chips to grade.
-5		4	4-6		0.0		Lite-brown line SAND and SILT.	
	-	5	6-8	3.1	0.0			
- 10	_	6	8-10		0.0			
	- 105	7	10-12	2.7	0.0		Dark-brown PEAT.	
		8	12-14	2.9	0.0		Gray-brown line SAND and SILT, trace line Gravel.	
[ _		9	14-15		0.0			
<del>3.5</del> 10	00 -							
Remarks: NA = Not Applicable/Available; bgs = below ground surface. Analyses: (0-1'): PCBs; (1-6'): PCBs; (8-10'): VOCs; (6-15'): PCBs, SVOCs, Inorganics, PCDDs/PCDFs								: VOCs;

Template: V:/GE\_Pittsfield\_CD\_Hill\_78\_Remainder/Notes and Data/Logs/Hill78SS.ldf Date: 6/19/2007

Rig Type: Sample Method: 2" OD x 4' L Macrocore							Easting: 136160.0		_		
DEPTH ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Stratigraphic Desc	ription		С	Boring Construction
	1	0-1		0.0		Gray - brown	h SILT, some organic material, lite b	brown fine Sand.			
	2	1-3	2.4	0.0		Brown fine S/	AND, some Silt and Gravel,				Borehole backfilled with Bentonite
1005 -	3	3-4		0.0		Grav light fine	e SAND, some Gravel.				chips to grade.
-5.	- 4	4-6		0.0							
-	5	6-8	3.7	0.0			SILT, some Peal and Organic and (	Organic Material.			
1000	6	8-10		0.0		Gray-brown t	light fine SAND, some Sill and Grav	some Sill and Gravel, some Clay.			
	7	10-12	4.0	0.0							
- 995	- 8	12-14	3.0	0.0							
225	995 - 9 14-15 0.0										



Remarks: NA = Not Applicable/Available; bgs = below ground surface.

Analyses: (0-1'): PCBs; (1-6'): PCBs; (6-15'): PCBs.

Project: 20464.031 Data File: RAA9-A13N.dat Template: V:/GE\_Pittsfield\_CD\_Hill\_78\_Remainder/Notes and Data/Logs/Hill78SS.ldf Date: 7/5/2007

Date Start/Finish: 6/6/2007 Drilling Company: ABBL Driller's Name: Ed Cimilluca Drilling Method: AMS PowerProbe Auger Size: Rig Type: Sample Method: 2" OD x 4' L Macrocore								Northing: 536056.9 Easting: 136253.9 Casing Elevation: NA Borehole Depth: 15' Surface Elevation: 1018.8 Descriptions By: Greg Rabasco	_	o: RAA9-A14 eneral Electric Company : Pittsfield, Massachusetts
DEPTH	DEPTH ELEVATION Sample Run Number Sample/Int/Type Recovery (feet) PID Headspace (ppm) Geologic Column							Stratigraphic Description	Boring Construction	
10	- 20 -									
-0	1	1	0-1		0.0		Brown fine S	AND and SILT, some Organic Material, trace Gravel.		
-	1	2	1-3	3.5	0.0		Gray-brown	ine SAND, some Silt, trace Gravel.		
-		3	3-4		0.0					Borehole backfilled with Bentonite chips to grade.
-5	- 15	4	4-6	2.0	0.0					
	-	5	6-8	2.0	0.0					
10	- 10 -	6	8-10		0.0		Gray fine SA	ND, some Gravel, moist.		
-	-	7	10-12	2.8	0.0					
10	-	8	12-14	3.0	0.0		Gray fine SA	ND, some gravel, trace Sill, wel.		
9 14-15 0.0									••••••••••••••••••••••••••••••••••••••	
Infrastructure, environment, facilities							BBL	emarks: NA = Not Applicable/Available; bg Analyses: (0-1'): PCBs, VOCs, SVOCs, Inor (1-6'): PCBs, RAA-07-Dup-4; (6-1	ganics, PC	DDs/PCDFs;

Template: V:/GE\_Pittsfield\_CD\_Hill\_78\_Remainder/Notes and Data/Logs/Hill78SS.ldf Date: 6/20/2007

Drilli Drille Drilli Auge Rig	ing C er's N ing M er Siz Type:	ompa lame: lethoo te:	sh: 6/ ny: A Ed C I: AM I: AM	BBL imilluc S Pow	a erProl		ore	Northing: 535943.1 Easting: 135956.7 Casing Elevation: NA Borehole Depth: 15' Surface Elevation: 1011.9 Descriptions By: Greg Rabasco	Boring ID: RAA9-B11 Client: General Electric Company Location: Pittsfield, Massachusetts		
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Stratigraphic Description		Boring Construction	
	****	1	0-1		0.0		Brown fine S	AND and SILT, some Gravel.			
10	10 -	2	1-3	2.8	0.0		Brown fine S	AND, some Sill and Gravel.			
		3	3-4		0.0					Borehole backfilled with Bentonite chips to grade.	
- 5	1	4	4-6	3.5	0.0						
10	05 -	5	6-8	0.0	0.0						
- 10		6	8-10	2.2	0.0		Brown fine S	SAND, some Silt and Gravel, moist.			
10	- 000	7	10-12		0.0					<b>.</b>	
-	-	8	12-14	2.0	0.0		Gray fine SA	ND, some Gravel, wet.			
9 14-15 0.0					0.0						
Project: 20464.031								emarks: NA = Not Applicable/Available; b Analyses: (0-1'): PCBs, VOCs, SVOCs, Inor (1-3'): VOCs, MS/MSD; (1-6'): PC (1-6'): PCDDS/PCDFs, MS/MSD; E Pittsfield CD Hill 78 Remainder/Notes a	ganics, PC Bs, VOCs, (6-15'): PC	DDs/PCDFs; SVOCs, Inorganics, Bs	

Project: 20464.031 Data File: RAA9-B11.dat Template: V:/GE\_Pittsfield\_CD\_Hill\_78\_Remainder/Notes and Data/Logs/Hill78SS.id Date: 6/20/2007

Drilli Drille Drilli Auge Rig 1	ng C er's N ng M er Siz 'ype:	ompa Name: Iethoo te:	iny: A Ed C I: AM	5/2007 BBL Similluc S Pow OD x 4	ca erProi		ore	Northing: 535842.5Boring ID: RAA9-C9Easting: 135769.1Client: General Electric CompanyCasing Elevation:Client: General Electric CompanyBorehole Depth: 15'Location:Surface Elevation: 1010.0Pittsfield, MassachusettsDescriptions By: Greg RabascoPittsfield, Massachusetts		
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Stratigraphic Description		Boring Construction
- - 02-0:										
-	-	1	0-1		0.0	·····		some fine Sand and Organic Material.		
-		2	1-3	3.5	0.0		Gray-brown t	ine SAND and SILT, some Gravel.		
	-	3	3-4		0.0					Borehole backfilled with Bentonite chips to grade.
51 01	- 55	4	4-6		0.0					
-	_	5	6-8	3.3	0.0		Brown fine S	AND.		
- 1300		6	8-10	3.2	0.0		Gray fine SA	ND, some Gravel, moist.		
	-	7	10-12	0.2	0.0		Brown PEAT			
	-	8	12-14	3.0	0.0		Gray fine SA	ND, moist.		
159	95	9	14-15		0.0					
Infr	astri		e, en			t, fac	3BL ilities	marks: NA = Not Applicable/Available; b Analyses: (0-1'): PCBs, VOCs, SVOCs, Inc (1-6'): PCBs; (6-15'): PCBs	rganics, PCI	DDS/PCDFs;

Template: V:/GE\_Pittsfield\_CD\_Hill\_78\_Remainder/Notes and Data/Logs/Hill78SS.ldf Date: 6/20/2007

Drilli Drilli Drilli Auge Rig	ing C er's N ing M er Siz Type:	ompa Name: Iethoo ze:	i <b>ny:</b> A Paol I: AM	o Filip S Pow	petti ⁄erPro	be 1acroco	ore	Northing: 535734.3 Easting: 135568.8 Casing Elevation: NA Borehole Depth: 15' Surface Elevation: 1015.4 Descriptions By: Paolo Filippetti		D: RAA9-D7 eneral Electric Company I: Pittsfield, Massachusetts
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Stratigraphic Description		Boring Construction
-										
10	15 -	1	0-1		0.0		Dark-brown t	ine SAND and SILT, trace fine Gravel, trace Roots.		
		2	1-3	3.5	0.0		Brown mediu	m to fine SAND, little Silt, little fine Gravel.		
-	-	3	3-4		0.0					Borehole backfilled with Bentonite chips to grade.
-5	- 10	4	4-6	3.1	0.0		Brown mediu	m to fine SAND, some fine Gravel and Sill.		
	_	5	6-8		0.0					
- 10	-	6	8-10	2.7	0.0					
10	05 -	7	10-12		0.0		Life-prown fir	e to medium SAND, some fine to medium Gravel.		
-	-	8	12-14	2.9	0.0		Weathered L			×
- <u>15</u> 10	- 00 -	9	14-15		0.0		Brown mediu	m to fine SAND, some fine GRAVEL.		
Infrastructure, environment, facilities								marks: NA = Not Applicable/Available; Analyses: (0-1'): PCBs; (1-6'): PCBs; (10- (6-15'): PCBs, SVOCs, Inorgan	12'): VOCs; hics, PDCCs/P	CDFs

Template: V:/GE\_Pittsfield\_CD\_Hill\_78\_Remainder/Notes and Data/Logs/Hill78SS.ldf Date: 6/19/2007

Drill Drill Drill Aug Rig	ing C er's N ing M er Siz Type:	ompa lame: lethoc :e:	sh: 6/ ny: A Paole I: AM I: AM	BBL 5 Filipp S Pow	oetti erProl		e	Northing: 535757.1 Easting: 135753.8 Casing Elevation: NA Borehole Depth: 15' Surface Elevation: 1006.6 Descriptions By: Paolo Filippetti	<b>D</b> : RAA9-D9 General Electric Company n: Pittsfield, Massachusetts
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Stratigraphic Description	 Boring Construction
-	-								
	-	1	0-1		0.0		Dark-brown	fine SAND and SILT, trace line Gravel, and Roots.	
10	05 -	2	1-3	3.4	0.0		Grey-brown	SILT, some fine SAND.	-
-		3	3-4		0.0				Borehole backfilled with Bentonite chips to grade.
- 5	-	4	4-6		0.0		Grey fine SA	ND and SILT, trace fine Gravel.	
10	- 000	5	6-8	3.3	0.0				
10		6	8-10	3.0	0.0		Dark-brown	PEAT.	
<b>.</b>	- 995 -	7	10-12	3.0	0.0		Brown fine to	o medium SAND.	
		8	12-14	3.0	0.0		Yellow-brow	in fine SAND.	
-15		9	14-15		0.0				
ARCADIS BBL Infrastructure, environment, facilities								emarks: NA = Not Applicable/Availabl Analyses: (0-1'): PCBs; (1-6') (4-6'): VOCs, (6-15'): PCBs	ground surface. s, Inorganics, PCDDs, PCDFs

Drilli Drilli Drilli Auge Rig	ing C er's N ing M er Siz Type:	ompa ≹ame: lethoc te:	sh: 6/ ny: A Ed C d: AM d: 2"	BBL imilluc S Pow	a erProl	be acroco	re	Northing: 535640.4Boring ID: RAA9-E5Easting: 135376.7Client: General Electric CompCasing Elevation: NAClient: General Electric CompBorehole Depth: 15.0'Location:Surface Elevation: 1020.5Pittsfield, MassachDescriptions By: Greg RabascoPittsfield, Massach		eneral Electric Company	
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Stratigraphic Description		*****	Boring Construction
-											
10	20 -	1	0-1		0.0			and SAND, some Organic Material.			
-		2	1-3	3.0	0.0		Light-brown	line SAND, some Gravel and Silt.			
	-	3	3-4		0.0						Borehole backfilled with Bentonite chips to grade.
-5	- 15 -	4	4-6		0.0						
		5	6-8	3.7	0.0		Gray SILT, s	ome Clay and Gravel.			
- 10	_	6	8-10	3.8	0.0						
	- 10 -	7	10-12		0.0						
-		8	12-14	3.0	0.0						
- <u>15</u> -	- 9 14-15 0.0 										
10	05 -										
							BBL ilities	emarks: NA = Not Applicable/Av Analysis: (0-1'): PCBs; (1-6'): PCI (4-6'): DOCs, VOCs, RA	Bs, VOCs,	SVOCs, In	ground surface. lorganics, PCDDs/PCDFs;

Drill Drill Drill Aug Rig	ing C er's M ing M er Siz Type	iompa Name: Iethoo ze:	sh: 6/ uny: A : Ed C d: AM d: 2"	\BBL Similluc S Pow	≿a erPro		re	Northing: 535537.9 Easting: 135178.8 Casing Elevation: NA Borehole Depth: 15' Surface Elevation: 1010.7 Descriptions By: Greg Rabasco	_	D: RAA9-F3 eneral Electric Company :: Pittsfield, Massachusetts
DEPTH	DEPTH ELEVATION Sample Run Number Sample/Int/Type Recovery (feet) PID Headspace (ppm) Geologic Column							Stratigraphic Description	Boring Construction	
-										
10	0 1010 - 1 0-1 0.0							and fine SAND, some Gravel and Organic Material.		
-		2	1-3	2.4	0.0					
-	_	3	3-4		0.0					Borehole backfilled with Bentonite chips to grade.
-5 10		4	4-6		0.0		Grey-brown S	SILT, some fine Sand, trace Gravel.		
-		5	6-8	3.6	0.0					
	-	6	8-10		0.0					
- 10	- 00	7	10-12	3.8	0.0					
e.		8	12-14	3.0	0.0					
	9 14-15 0.0									
<u>-</u>	995 -						r	MANAMANANUU		
<b>ARCADIS</b> BBL Infrastructure, environment, facilities								marks: NA = Not Applicable/Available; bç Analysis: (0-1'): PCBs, VOCs, SV (1-6'): PCBs; (6-15'): PCBs		

Drill Drill Drill Aug Rig	ing C er's № ing M er Siz Type:	ompa Name: Iethoc te:	i <b>ny:</b> A Greç I: AM	/6/2007 \BBL J Raba S Pow OD x 4	sco erProl		bre	Easting: 135055.9		D: RAA9-G2S Seneral Electric Company n: Pittsfield, Massachusetts	
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Stratigraphic Description		c	Boring onstruction
- 10	- 000	1	0-1	1.0	0.0		Brown SiLT,	some fine Sand and Gravel, Irace Organic Material.			Borehole backfilled with Bentonite
		1									chips to grade.
- 10	990 - - - 985 -										
- 15	Ŕ						BBL <i>ilities</i>	emarks: NA = Not Applicable/Availabl Anałyses: (0-1'): PCBs	e; bgs = belov	ground surface	e.

Drill Drill Drill Aug Rig	ing C er's N ing M er Siz Type:	ompa lame: lethoc :e:	ny: A Greg I: AM	'6/2007 \BBL J Raba S Powe ID x 4'	sco erProl		e	Borehole Depth: 15' Location: Surface Elevation: 994.6		eneral Electric Company				
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Stratigraphic Description			1	Boring Construction		
-	- 995 - 	1	0-1	1.0	0.0		Dark-brown S pieces.	SILT, some fine Sand and Gravel, some Organic M	laterial, tra	ce Asphalt		Borehole backfilled with Bentonite chips to grade.		
											Trastro-			
-5	_													
- 10	985													
R ARCADIS BBL Infrastructure, environment, facilities								emarks: NA = Not Applicable/Availal Analyses: (0-1'): VOCs, SVOCs, Inorg				9.		

Drilli Drilli Drilli Auge Rig	ing C er's N ing M er Siz Type:	ompa Name: lethor ze:	i <b>ny:</b> A Paol d: AM	lo Filip IS Pow	petti verPro	be acroco	re	Northing: 535260.8Boring ID: RAA9-16Easting: 135457.5Client: General Electric CompanyClient: General Electric CompanyClient: General Electric CompanyBorehole Depth: 15'Location:Surface Elevation: 1011.0Pittsfield, MassachusettsDescriptions By: Paolo FilippettiPittsfield, Massachusetts			
DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Stratigraphic Description		Boring Construction	
-							Orange.brou	n fine to medium SAND, trace fine Gravel.			
- 10	10 -	1	0-1		0.0		Orange-prow	in line to medium SANU, trace tine Gravel.			
*	-	2	1-3		0.0						
		3	3-4		0.0					Borehole backfil with Bentonile chips lo grade.	led
5		4	4-6		0.0		Light-brown f Dark-brown f	line to medium SAND, some fine Gravel.			
- 10		5	6-8	-	0.0						
-	1	6	8-10		0.0		lite-brown SI	LT, some fine Sand, Irace fine Gravel.			
- 10 - 10	00 -	7	10-12		0.0						
F 	-	8	12-14		0.0		Gray SILT, tr	ace line Gravel.			
		9	14-15		0.0						
								······			
<b>ARCADIS</b> BBL Infrastructure, environment, facilities							BBL	emarks: NA = Not Applicable/Available; Analyses: (0-1'): PCBs; (1-6'): F (2-4'): VOCs, (6-15'): PCBs			

# ARCADIS BBL

## Attachment B

Soil Sampling Data Validation Report

Attachment B Soil Sampling Data Validation Report Third Supplemental Pre-Design Investigation Hill 78 Area-Remainder General Electric Company Pittsfield, Massachusetts

## 1.0 General

This attachment summarizes the data validation review performed for soil samples collected during June and July 2007 as part of supplemental pre-design sampling activities conducted at the Hill 78 Area-Remainder Removal Action Area (RAA) located at the General Electric Company (GE) facility in Pittsfield, Massachusetts. The sampling was conducted by ARCADIS of New York (ARCADIS BBL), and the samples were analyzed for polychlorinated biphenyls (PCBs) and/or various other constituents listed in Appendix IX of 40 CFR Part 264, plus three additional constituents -- benzidine, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine (hereafter referred to as Appendix IX+3) by SGS Environmental Services, Inc. (formerly Paradigm Analytical Labs, Inc.) of Wilmington, North Carolina. Data review was performed for 34 PCB samples, 13 volatile organic compound (VOC) samples, 13 semi-volatile organic compound (SVOC) samples, 13 polychlorinated dibenzo-p-dioxin (PCDD)/polychlorinated dibenzofuran (PCDF) samples, 13 metal samples, and 13 cyanide/sulfide samples.

## 2.0 Data Evaluation Procedures

This attachment outlines the applicable quality control criteria utilized during the data review process and any deviations from those criteria. The data review was conducted in accordance with the following documents:

- Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS BBL (submitted by GE on March 30, 2007 and approved by EPA on June 13, 2007);
- Region I Tiered Organic and Inorganic Data Validation Guidelines, EPA Region I (July 1, 1993);
- Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses, EPA Region I (Draft, December 1996); and
- National Functional Guidelines for Dioxin/Furan Data Validation, EPA (Draft, January 1996).

The data were validated to either a Tier I or Tier II level, as described below. Any deviations from the applicable quality control criteria utilized during the data review process are identified below. A tabulated summary of the Tier I/Tier II data review is presented in Table B-1. Each sample subject to evaluation is listed in Table B-1 to document that data review was performed. Samples that required data qualification are listed separately.

The following data qualifiers were used in this data evaluation:

- J The compound was positively identified, but the associated numerical value is an estimated concentration. This qualifier is used when the data evaluation procedure identifies a deficiency in the data generation process. This qualifier is also used when a compound is detected at an estimated concentration less than the corresponding practical quantitation limit (PQL).
- U The compound was analyzed for, but was not detected. The sample quantitation limit is presented. Non-detect sample results are presented as ND(PQL) within this report for consistency with documents previously prepared for investigations conducted at the GE-Pittsfield/Housatonic River Site.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is estimated and may or may not represent the actual level of quantitation. Non-detect sample results that required qualification are presented as ND(PQL) J within this report for consistency with documents previously prepared for investigations conducted at the GE-Pittsfield/Housatonic River Site.
- R Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data should not be used for any qualitative or quantitative purpose.

## 3.0 Data Validation Procedures

Section 7.5 of the FSP/QAPP states that analytical data will be validated to a Tier I level following the procedures presented in the *Region I Tiered Organic and Inorganic Data Validation Guidelines* (EPA guidelines). All supplemental soil sampling analytical data collected during the June and July 2007 investigations were subjected to Tier I review. The Tier I review consisted of a completeness evidence audit, as outlined in the *EPA Region I CSF Completeness Evidence Audit Program* (EPA Region I, July 31, 1991), to ensure that laboratory data and documentation were present. In the event data packages were determined to be incomplete, the missing information was requested from the laboratory. Upon completion of the Tier I review, the data packages complied with the EPA Region I Tier I data completeness requirements.

The Tier II data review consisted of a review of data package summary forms for identification of quality assurance/quality control (QA/QC) deviations and qualification of the data according to the Region I Data Validation Functional Guidelines. Additionally, field duplicates were examined for relative percent difference (RPD) compliance with the criteria specified in the FSP/QAPP.

A tabulated summary of the samples subject to Tier I and Tier II data review is presented in the following table.

_		Tier I Only				Total	
Parameter	Samples	Duplicates	Blanks	Samples	Duplicates	Blanks	Total
PCBs	3	0	0	27	2	2	34
VOCs	0	0	0	11	1	1	13
SVOCs	0	0	0	11	1	1	13
PCDDs/PCDFs	0	0	0	11	1	1	13
Metals	0	0	0	11	1	1	13
Cyanide/Sulfide	0	0	0	11	1	1	13
Total	3	0	0	82	7	7	66

Summary of Samples Subject to Tier I and Tier II Data Validation

Three of the four laboratory sample delivery group packages obtained between June and July 2007 (approximately 95% of the data) were randomly chosen to be subjected to Tier II review.

When qualification of the sample data was required, the sample results associated with a QA/QC parameter deviation were qualified in accordance with the procedures outlined in EPA Region I data validation guidance documents. When the data validation process identified several quality control deficiencies, the cumulative effect of the various deficiencies was employed in assigning the final data qualifier. A summary of the QA/QC parameter deviations that resulted in data qualification is presented in Section 4 below.

## 4.0 Summary of QA/QC Parameter Deviations Requiring Data Qualification

This section provides a summary of the deviations from the applicable QA/QC criteria that resulted in qualification of results.

The initial calibration criterion for organic analyses requires that the average relative response factor (RRF) has a value greater than 0.05. Sample results were qualified as estimated (J) when this criterion was not met. The compounds that did not meet the initial calibration criterion and the number of samples qualified are presented in the following table.

Compol	inds Qualified Due to Initial Cal	Ibration Deviations (R	(RF)
Analysis	Compound	Number of Affected Samples	Qualification
VOCs	1,2-Dibromo-3-chloropropane	1	J
	1,4-Dioxane	13	J
	2-Chloroethylvinylether	12	J
	Acetone	1	J
	Acetonitrile	13	J
	Acrolein	13	J
	Acrylonitrile	1	J

Compounds Qualified Due to Initial Calibration Deviations (RRF)

Analysis	Compound	Number of Affected Samples	Qualification
VOCs (continued)	Isobutanol	13	J
	Propionitrile	13	J
SVOCs	4-Nitroquinoline-1-oxide	13	J
	a,a'-Dimethylphenethylamine	13	J
	Aramite	13	J

Compounds Qualified Due to Initial Calibration Deviations (RRF)

Several of the organic compounds (including the compounds presented in the table above detailing RRF deviations) exhibit instrument response factors (RFs) below the USEPA Region I minimum value of 0.05, but meet the analytical method criterion, which does not specify minimum RFs for these compounds. These compounds were analyzed by the laboratory at a higher concentration than the compounds that normally exhibit RFs greater than the USEPA Region I minimum value of 0.05 in an effort to demonstrate acceptable response. USEPA Region I guidelines state that non-detect compound results associated with a RF less than the minimum value of 0.05 are to be rejected (R). However, in the case of these select organic compounds, the RF is an inherent problem with the current analytical methodology; therefore, the non-detect sample results were qualified as estimated (J).

The continuing calibration criterion requires that the percent difference (%D) between the initial calibration RRF and the continuing calibration RRF be less than 25% for VOCs and SVOCs. Sample data for detect and non-detect compounds with %D values that exceeded the continuing calibration criteria were qualified as estimated (J). A summary of the compounds that exceeded the continuing calibration criterion and the number of samples qualified due to those deviations are presented in the following table.

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	2-Butanone	4	J
	2-Chloroethylvinylether	4	J
	2-Hexanone	8	J
	Acetone	9	J
	lodomethane	4	J
	Methylene Chloride	4	J
	Tetrachloroethene	1	J
SVOCs	1-Naphthylamine	13	J
	2-Acetylaminofluorene	13	J
	2-Naphthylamine	13	J
	3,3'-Dichlorobenzidine	4	J
	3-Methylcholanthrene	13	J
	4-Nitrophenol	4	J
	4-Nitroquinoline-1-oxide	13	J
	a,a'-Dimethylphenethylamine	9	J
SVOCs	Aniline	8	J
0,003	Aramite	4	J

Compounds Qualified Due to Continuing Calibration of %D Values

Analysis	Compound	Number of Affected Samples	Qualification
(continued)	Benzidine	13	J
	Benzo(g,h,i)perylene	1	J
	Dibenzo(a,h)anthracene	8	J
	Hexachlorocyclopentadiene	4	J
	Hexachlorophene	1	J
	Hexachloropropene	4	J
	Indeno(1,2,3-cd)pyrene	5	J
	Methapyrilene	8	J
	o-Toluidine	13	J

Compounds Qualified Due to Continuing Calibration of %D Values

Contract required detection limit (CRDL) standards were analyzed to evaluate instrument performance at lowlevel concentrations that are near the analytical method PQL. These standards are required to have recoveries between 80% and 120% to verify that the analytical instrumentation was properly calibrated. When CRDL standard recoveries were outside the 80% to 120% control limits, the affected samples with detected results at or near the PQL concentration (i.e., less than three times the PQL) were qualified as estimated (J). The analytes that did not meet CRDL criteria and the number of samples qualified due to those deviations are presented in the following table.

Analysis	Analyte	Number of Affected Samples	Qualification
Inorganics	Barium	6	J
	Beryllium	13	J
	Cadmium	6	J
	Chromium	1	J
	Cobalt	1	J
	Copper	1	J
	Lead	1	J
	Nickel	1	J
	Selenium	6	J
	Silver	6	J
	Thallium	10	J
	Tin	7	J
	Zinc	1	J

Analytes Qualified Due to CRDL Standard Recovery Deviations

Matrix spike/Matrix spike duplicate (MS/MSD) sample analysis recovery criteria for organic analysis require that the MS/MSD recoveries be within the laboratory-generated QC acceptance limits specified on the MS/MSD reporting form and inorganics MS recoveries must be within 75% to 125%. Organic and inorganic sample results associated with MS/MSD recoveries less than the specified control limit, but greater than 10% and 30%, respectively, were qualified as estimated (J). The analytes/compounds that did not meet MS/MSD recovery criteria and the number of samples qualified due to those deviations are presented in the following table.

Analysis	Analyte/Compound	Number of Affected Samples	Qualification
VOCs	1,2-Dichloropropane	1	J
	cis-1,3-Dichloropropene	1	J
	Ethylbenzene	1	J
	Styrene	1	J
	1,1-Dichloroethane	1	J
	1,2-Dibromo-3-chloropropane	1	J
	1,2-Dichloroethane	1	J
	1,2-Dichloropropane	1	J
	Bromodichloromethane	1	J
	Chloroform	1	J
	Chloromethane	1	J
	Dichlorodifluoromethane	1	J
	trans-1,3-Dichloropropene	1	J
	trans-1,4-Dichloro-2-butene	1	J
	Vinyl Chloride	1	J
SVOCs	Dibenzo(a,h)anthracene	1	J
Inorganics	Selenium	4	J
	Antimony	4	J
	Zinc	4	J
	Sulfide	8	J

Analytes/Compounds Qualified Due to MS/MSD Recovery Deviations

Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analysis recovery criteria for organics must be within the laboratory-generated QC acceptance limits specified on the LCS/LCSD reporting form. Organic sample results associated with an LCS/LCSD that exceeded laboratory-generated QC acceptance limits and exhibited a recovery greater than 10% were qualified as estimated (J). Associated non-detect organic sample results that exhibited LCS/LCSD recoveries below 10% were qualified as rejected (R). The compounds that did not meet LCS/LCSD recovery criteria and the number of samples qualified due to those deviations are presented in the following table.

Analysis	Compound	Number of Affected Samples	Qualification	
VOCs	1,2,3-Trichloropropane	1	J	
	1,2-Dibromo-3-chloropropane	4	J	
	2-Hexanone	4	J	
	4-Methyl-2-pentanone	4	J	
	Acetone	5	J	
	Methylene Chloride	4	J	
	trans-1,4-Dichloro-2-butene	4	J	
	1,2-Dibromo-3-chloropropane	4	J	
	trans-1,4-Dichloro-2-butene	8	J	
SVOCs	Benzo(k)fluoranthene	8	J	
	Nitrobenzene	1	R	

Compounds Qualified Due to LCS/LCSD Recovery Deviations

LCS/LCSD sample analysis recovery criteria for organics require that the RPD between the LCS and LCSD recoveries be less than the laboratory-generated QC acceptance limit. The number of samples qualified due to this deviation is presented in the following table.

Analysis	Compound	Number of Affected Samples	Qualification	
VOCs	1,2,3-Trichloropropane	1	J	

### Compound Qualified Due to LCS/LCSD RPD Deviations

Blank action levels for organic and inorganic analytes/compounds detected in the blanks were calculated at five times the blank concentrations (blank action levels were calculated at 10 times the blank concentration for common laboratory contaminants). Detected sample results that were below the blank action level were qualified with a "U." The analytes/compound detected in method/analytical blanks which resulted in qualification of sample data, along with the number of affected samples, are presented in the following table.

## Analytes/Compound Qualified Due to Blank Deviations

Analysis	Analyte/Compound	Number of Affected Samples	Qualification		
VOCs	Methylene Chloride	4	U		
Inorganics	Antimony	10	U		
	Beryllium	4	U		
	Cadmium	7	U		
	Selenium	1	U		
	Silver	8	U		

Internal standard compounds for PCDDs/PCDFs are required to be between 25% and 150%. Sample results for the associated compounds were qualified as estimated (J) when the internal standard recovery was less than 25% for PCDDs/PCDFs. The compound associated with internal standards which exceeded the recovery criteria and the number of samples qualified due to those deviations are presented in the following table.

Analysis	Compound	Number of Affected Samples	Qualification
PCDDs/PCDFs	OCDD	1	J

## **Compound Qualified Due to Internal Standard Recovery Deviations**

## 5.0 Overall Data Usability

This section summarizes the analytical data in terms of its completeness and usability. Data completeness is defined as the percentage of sample results that have been determined to be usable during the data validation process. The percent usability calculation included analyses evaluated under both the Tier I/II data validation reviews. The percent usability calculation also includes quality control samples (i.e., field/equipment blanks, trip blanks, and field duplicates) to aid in the evaluation of data usability. Data usability is summarized in the following table.

Data Usability								
Parameter	Percent Usability	Rejected Data						
PCBs	100	None						
VOCs	100	None						
SVOCs	99.9	A total of one sample result was rejected due to LCS/LCSD recovery deviations.						
PCDDs/PCDFs	100	None						
Metals	100	None						
Cyanide and Sulfide	100	None						

The data package completeness, as determined from the Tier I data review, was used in combination with the data quality deviations identified during the Tier II data review to determine overall data quality. As specified in the FSP/QAPP, the overall precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters determined from the Tier I and Tier II data reviews were used as indicators of overall data quality. These parameters were assessed through an evaluation of the results of the field and laboratory QA/QC sample analyses to provide a measure of compliance of the analytical data with the Data Quality Objectives (DQOs) specified in the FSP/QAPP. Therefore, the following sections present summaries of the PARCC parameters assessment with regard to the DQOs specified in the FSP/QAPP.

## 5.1 Precision

Precision measures the reproducibility of measurements under a given set of conditions. Specifically, it is a quantitative measure of the variability of a group of measurements compared to their average value. For this investigation, precision was defined as the RPD between laboratory duplicates, field duplicates, LCS/LCSD, MS/MSD, and ICP serial dilution analyses. For this analytical data set, 0.03% of the data required qualification due to LCS/LCSD RPD deviations. None of the data required qualification due to the LCS/LCSD RPD deviations. None of the data required qualification due to field duplicate RPD deviations, laboratory duplicate RPD deviations, MS/MSD RPD deviations, or ICP serial dilution deviations.

## 5.2 Accuracy

Accuracy measures the bias in an analytical system or the degree of agreement of a measurement with a known reference value. For this investigation, accuracy was defined as the percent recovery of QA/QC samples that were spiked with a known concentration of an analyte or compound of interest. The QA/QC samples used to evaluate analytical accuracy included instrument calibration, internal standards, LCS/LCSDs, MS/MSD samples, CRDL samples, and surrogate compound recoveries. For this analytical data set, 10.0% of the data required qualification due to instrument calibration deviations, 0.03% of the data required qualification due to instrument calibration deviations, 0.03% of the data required qualification due to internal standard recovery, 1.2% of the data required qualification due to MS/MSD recovery deviations, 2.0% of the data required qualification due to CRDL recovery deviations, and 1.5% of the data required qualification due to LCS recovery deviations. None of the data required qualification due to surrogate compound recovery deviations.

## 5.3 Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is a qualitative parameter, which is most concerned with the proper design of the sampling program. The representativeness criterion is best satisfied by making certain that sampling locations are selected properly and a sufficient number of samples are collected. This parameter has been addressed by collecting samples at locations specified in the EPA-approved work plan, and by following the procedures for sample collection/analyses that were described in the FSP/QAPP. Additionally, the analytical program used procedures consistent with EPA-approved analytical methodology. A QA/QC parameter that is an indicator of the representativeness of a sample is holding time. Holding time criteria are established to maintain the samples in a state that is representative of the in-situ field conditions before analysis. For this analytical data set, none of the data required qualification due to extraction holding time deviations.

## 5.4 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. This goal was achieved through the use of the standardized techniques for sample collection and analysis presented in the FSP/QAPP. Specifically, all the soil samples collected between June and July 2007 were analyzed by EPA method 8082 for PCBs, 8260 for VOCs, 8270 for SVOCs, 6000 for metals, 9010/9030 for cyanide/sulfide, and 8290 for PCDD/PCDFs.

## 5.5 Completeness

Completeness is defined as the percentage of measurements that are judged to be valid or usable to meet the prescribed DQOs. The completeness criterion is essentially the same for all data uses -- the generation of a sufficient amount of valid data. The actual completeness of this analytical data set ranged from 99.9% to 100% for individual analytical parameters and had an overall usability of 99.9%, which is greater than the minimum required usability of 90% as specified in the FSP/QAPP.

Sample Delivery				Validation							
Group No. PCBs	Sample ID	Date Collected	Matrix	Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
G135-434	RAA-07-DUP-3 (1 - 6)	6/5/2007	Soil	Tier II	No						Parent sample RAA9-E5
G135-434	RAA9-C9 (0 - 1)	6/5/2007	Soil	Tier II	No						
G135-434 G135-434	RAA9-C9 (1 - 6) RAA9-C9 (6 - 15)	6/5/2007 6/5/2007	Soil Soil	Tier II Tier II	No No						
G135-434	RAA9-E5 (0 - 1)	6/5/2007	Soil	Tier II	No						
G135-434 G135-434	RAA9-E5 (1 - 6)	6/5/2007	Soil	Tier II	No No						
G135-434 G135-434	RAA9-E5 (6 - 15) RAA9-F3 (0 - 1)	6/5/2007 6/5/2007	Soil Soil	Tier II Tier II	No						
G135-434	RAA9-F3 (1 - 6)	6/5/2007	Soil	Tier II	No						
G135-434	RAA9-F3 (6 - 15)	6/5/2007 6/6/2007	Soil Soil	Tier II Tier II	No No						Parent sample RAA9-A14
G135-435 G135-435	RAA-07-DUP-4 (1 - 6) RAA9-07-RB-2	6/6/2007	Water	Tier II	No						Parent sample RAA9-A14
G135-435	RAA9-07-RB-3	6/6/2007	Water	Tier II	No						
G135-435 G135-435	RAA9-A14 (0 - 1)	6/6/2007	Soil	Tier II Tier II	No						
G135-435 G135-435	RAA9-A14 (1 - 6) RAA9-A14 (6 - 15)	6/6/2007 6/6/2007	Soil Soil	Tier II	No No						
G135-435	RAA9-B11 (0 - 1)	6/6/2007	Soil	Tier II	No						
G135-435	RAA9-B11 (1 - 6)	6/6/2007	Soil	Tier II	No						
G135-435 G135-438	RAA9-B11 (6 - 15) RAA9-A13 (0 - 1)	6/6/2007 6/7/2007	Soil Soil	Tier II Tier II	No No						
G135-438	RAA9-A13 (1 - 6)	6/7/2007	Soil	Tier II	No						
G135-438	RAA9-A13 (6 - 15)	6/7/2007	Soil	Tier II	No						
G135-438 G135-438	RAA9-D7 (0 - 1) RAA9-D7 (1 - 6)	6/7/2007 6/7/2007	Soil	Tier II Tier II	No No						
G135-438	RAA9-D7 (6 - 15)	6/7/2007	Soil	Tier II	No						
G135-438	RAA9-D9 (0 - 1)	6/7/2007	Soil	Tier II	No						
G135-438 G135-438	RAA9-D9 (1 - 6) RAA9-D9 (6 - 15)	6/7/2007 6/7/2007	Soil Soil	Tier II Tier II	No No						
G135-438	RAA9-I6 (0 - 1)	6/7/2007	Soil	Tier II	No						
G135-438	RAA9-I6 (1 - 6)	6/7/2007	Soil	Tier II	No						
G135-438 G135-454	RAA9-I6 (6 - 15) RAA9-A13N (0 - 1)	6/7/2007 7/5/2007	Soil Soil	Tier II Tier I	No No						
G135-454 G135-454	RAA9-A13N (0 - 1) RAA9-A13N (1 - 6)	7/5/2007	Soil	Tier I	No						
G135-454	RAA9-A13N (6 - 15)	7/5/2007	Soil	Tier I	No						
Metals G135-434	RAA-07-DUP-3 (1 - 6)	6/5/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.54)	Parent sample RAA9-E5
6135-434	RAA-07-DUP-3 (1 - 6)	0/5/2007	301	TIELI	res	Beryllium	CRDL Standard %R	52.3%	80% to 120%	ND(4.54) ND(1.13) J	Parent sample RAA9-E5
						Beryllium	Method Blank	-	-	ND(1.13)	
						Cadmium	Method Blank	-	-	ND(1.13)	
						Silver Thallium	Method Blank CRDL Standard %R	- 163.0%	- 80% to 120%	ND(1.13) ND(1.13) J	
						Tin	CRDL Standard %R	162.0%	80% to 120%	ND(1.13) J	
G135-434	RAA9-C9 (0 - 1)	6/5/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.37)	
1						Beryllium Cadmium	CRDL Standard %R Method Blank	52.3%	80% to 120%	ND(1.09) J ND(1.09)	
1						Silver	Method Blank	-	-	ND(1.09)	
1						Thallium	CRDL Standard %R	163.0%	80% to 120%	ND(1.09) J	
G135-434	RAA9-E5 (1 - 6)	6/5/2007	Soil	Tier II	Yes	Tin Antimony	CRDL Standard %R Method Blank	162.0%	80% to 120%	ND(1.09) J ND(3.95)	
0100 404	100.0-20(1-0)	0.0/2001	001	TIGT II	103	Beryllium	CRDL Standard %R	52.3%	80% to 120%	ND(0.986) J	
1						Cadmium	Method Blank	-	-	ND(0.986)	
1						Silver Thallium	Method Blank CRDL Standard %R	- 163.0%	- 80% to 120%	ND(0.986) ND(0.986) J	
1						Tin	CRDL Standard %R	162.0%	80% to 120%	ND(0.986) J	
G135-434	RAA9-F3 (0 - 1)	6/5/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(4.43)	
1						Barium Beryllium	CRDL Standard %R CRDL Standard %R	124.0% 47.6%	80% to 120% 80% to 120%	ND(1.11) J ND(1.11) J	
1						Beryllium	Method Blank	47.6%	- 80% to 120%	ND(1.11) J ND(1.11)	
1						Cadmium	CRDL Standard %R	200.0%	80% to 120%	ND(1.11) J	
1						Cadmium	Method Blank	- 129.0%	- 80% to 120%	ND(1.11)	
1						Selenium Silver	CRDL Standard %R CRDL Standard %R	129.0%	80% to 120% 80% to 120%	ND(2.21) J ND(1.11) J	
1						Silver	Method Blank	-	-	ND(1.11)	
1						Thallium	CRDL Standard %R	156.0%	80% to 120%	ND(1.11) J	
L		1		1		Tin	CRDL Standard %R	162.0%	80% to 120%	ND(1.11) J	

#### Third Supplemental Data Letter Hill 78 Area-Remainder General Electric Company - Pittsfield, Massachusetts (Results are presented in parts per million, ppm)

Sample Delivery Validation Group No. Sample ID Date Collecte Matrix Level Qualification Compound QA/QC Parameter Value Control Limits **Qualified Result** Notes Metals (continued) G135-435 RAA9-07-RB-2 6/6/2007 Water CRDI Standard %R 0.0211.1 Tier II Yes Barium 124.0% 80% to 120% CRDL Standard %R 160.0% 80% to 120% ND(0.0100) J Beryllium Cadmium CRDL Standard %R 200.0% 80% to 120% 0.00657 J CRDL Standard %R 152.0% 80% to 120% 0.00606 J Chromium Cobalt CRDL Standard %R 153.0% 80% to 120% ND(0.0100) J Copper CRDL Standard %R 170.0% 80% to 120% 0.00627 J CRDL Standard %R 175.0% Lead 80% to 120% 0.0144 J CRDL Standard %R 147.0% 80% to 120% 0.00569 J Nickel CRDL Standard %R 129.0% Selenium 80% to 120% 0.0107 J Silver CRDL Standard %R 144.0% 80% to 120% 0.00317 J Thallium CRDL Standard %R 156.0% 80% to 120% ND(0.0100) J Zinc CRDL Standard %R 121.0% 80% to 120% 0.00802 J G135-435 RAA9-A14 (0 - 1) 6/6/2007 Soil Tier II MS/MSD %R Yes 41.9%, 46.0% 75% to 125% ND(4.62) J Antimony ND(4.62) Antimony Method Blank Beryllium CRDL Standard %R 47.6% 80% to 120% ND(1.15) J Cadmium CRDL Standard %R 200.0% 80% to 120% ND(1.15) J Cadmium Method Blank ND(1.15) Selenium MS %R 73.7% 75% to 125% ND(2.31) CRDL Standard %R 129.0% ND(2.31) J 80% to 120% Selenium Silver CRDL Standard %R 144.0% 80% to 120% ND(1.15) J Method Blank ND(1.15) Silver Thallium CRDL Standard %R 156.0% 80% to 120% 1.25 J Zinc MS/MSD %R 137.0%, 71.5% 75% to 125% 62.5 J G135-435 RAA9-B11 (1 - 6) 6/6/2007 Soil MS/MSD %R Tier II Yes Antimony 41.9% 46.0% 75% to 125% ND(3.74) J Antimony Method Blank ND(3.74) CRDL Standard %R 47.6% 80% to 120% ND(0.934) J Beryllium CRDL Standard %R 200.0% 80% to 120% 1.06 J Cadmium Selenium CRDL Standard %R 129.0% 80% to 120% ND(1.87), Selenium MS %R 73.7% 75% to 125% ND(1.87). CRDL Standard %R 144.0% ND(0.934) J 80% to 120% Silver Silver Method Blank ND(0.934) CRDL Standard %R Thallium 156.0% 80% to 120% ND(0.934) MS/MSD %R 137.0%, 71.5% 75% to 125% 65.2 J Zinc G135-435 RAA9-G25 (0 - 1) 6/6/2007 Soil Tier II Yes Antimony MS/MSD %R 41.9%, 46.0% 75% to 125% ND(4.61) J ND(4.61) Antimony Method Blank CRDL Standard %R 47.6% 80% to 120% ND(1.15) J Bervllium CRDL Standard %R ND(1.15) J 200.0% 80% to 120% Cadmium Cadmium Method Blank ND(1.15) Selenium CRDL Standard %R 129.0% 80% to 120% ND(2.31) J Selenium MS %R 73.7% 75% to 125% ND(2.31) J CRDL Standard %R ND(1.15) J 144.0% 80% to 120% Silver Silver Method Blank ND(1.15) Thallium CRDL Standard %R 156.0% 80% to 120% 0.955 J MS/MSD %R 137.0%, 71.5% 75% to 125% 87.7 J G135-435 RAA9-I2 (0 - 1) 6/6/2007 Soil Tier II Yes Antimony MS/MSD %R 41.9%, 46.0% 75% to 125% ND(4.06) J Antimony Method Blank ND(4.06) CRDL Standard %R Beryllium 47.6% 80% to 120% 0.581 J 200.0% ND(1.02) J Cadmium CRDL Standard %R 80% to 120% Method Blank ND(1.02) Cadmium CRDL Standard %R 129.0% 80% to 120% ND(2.03) J Selenium Selenium MS %R 73.7% 75% to 125% ND(2.03) J CRDL Standard %R Silver 144.0% 80% to 120% ND(1.02) J Silver Method Blank ND(1.02) CRDL Standard %R 156.0% 80% to 120% Thallium ND(1.02) J MS/MSD %R 137.0%, 71.5% 75% to 125% 125 J Zinc G135-438 RAA9-A13 (6 - 15) 6/7/2007 Soil Tier II Barium CRDL Standard %R 126.0% 80% to 120% 26.2 J Yes ND(1.19) J Beryllium CRDL Standard %R 143.0% 80% to 120% Beryllium Method Blank ND(1.19) RAA9-D7 (6 - 15) G135-438 6/7/2007 Soil Tier II Yes Method Blank ND(4.13) Antimony CRDL Standard %R 126.0% 80% to 120% 20.5 J Barium Beryllium CRDL Standard %R 143.0% 80% to 120% ND(1.03) J CRDL Standard %R 164.0% 80% to 120% ND(1.03) J G135-438 RAA9-D9 (1 - 6) 6/7/2007 Soil Tier II Yes Barium CRDI Standard %R 126.0% 80% to 120% 16.9.1 ND(1.21) J CRDL Standard %R Beryllium 143.0% 80% to 120% ND(1.21) J CRDL Standard %R 164.0% 80% to 120% Tin

Sample Delivery Group No. Metals (cont	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
G135-438	RAA9-I6 (1 - 6)	6/7/2007	Soil	Tier II	Yes	Antimony	Method Blank	-	-	ND(3.83)	
						Barium	CRDL Standard %R	126.0%	80% to 120%	25.1 J	
						Beryllium	CRDL Standard %R	143.0%	80% to 120%	ND(0.957)J	
						Beryllium	Method Blank	-	-	ND(0.957)	
						Selenium	Method Blank	-	-	ND(1.91)	
						Thallium	CRDL Standard %R	128.0%	80% to 120%	ND(0.957) J	
						Tin	CRDL Standard %R	164.0%	80% to 120%	ND(0.957) J	
VOCs		0/5/0007	0.1			4.0.07	1.00 % 5	10 50/	07.40/ . 4000/		
G135-434	RAA-07-DUP-2 (4 - 6)	6/5/2007	Soil	Tier II	Yes	1,2-Dibromo-3-chloropropane 1,4-Dioxane	LCS %R ICAL RRF	18.5%	67.4% to 133% >0.05	ND(0.026) J ND(5.3) J	Parent sample RAA9-E5
						2-Butanone	CCAL %D	36.5%	<25%	ND(5.3) J ND(0.0053) J	
						2-Chloroethylvinylether	ICAL RRF	0.015	>0.05	ND(0.026) J	
						2-Chloroethylvinylether	CCAL %D	26.7%	<25%	ND(0.026) J	
						2-Hexanone	CCAL %D	35.0%	<25%	ND(0.0053) J	
						2-Hexanone	LCS %R	33.8%	61.2% to 139%	ND(0.0053) J	
						4-Methyl-2-pentanone	LCS %R	43.1%	65.1% to 135%	ND(0.0053) J	
						Acetone	CCAL %D	46.2%	<25%	ND(0.0053) J	
					1	Acetonitrile	ICAL RRF	0.005	>0.05	ND(1.1) J	
						Acrolein	ICAL RRF	0.042	>0.05	ND(0.065) J	
						Isobutanol	ICAL RRF	0.006	>0.05	ND(2.6) J	
						Methylene Chloride	Method Blank	-	-	0.02	
						Methylene Chloride	CCAL %D	49.3%	<25%	0.020 J	
						Methylene Chloride	LCS %R	157.0%	57.9% to 142%	0.020 J	
						Propionitrile	ICAL RRF	0.007	>0.05	ND(1.1) J	
						trans-1,4-Dichloro-2-butene	LCS %R	20.1%	69.5% to 130%	ND(0.011) J	
G135-434	RAA9-C9 (0 - 1)	6/5/2007	007 Soil	Tier II	Yes	1,2-Dibromo-3-chloropropane	LCS %R	18.5%	67.4% to 133%	ND(0.031) J	
						1,4-Dioxane 2-Butanone	ICAL RRF CCAL %D	0.001 36.5%	>0.05	ND(6.2) J ND(0.0062) J	
						2-Chloroethylvinylether	ICAL RRF	0.015	>0.05	ND(0.0062) J ND(0.031) J	
						2-Chloroethylvinylether	CCAL %D	26.7%	<25%	ND(0.031) J	
						2-Hexanone	CCAL %D	35.0%	<25%	ND(0.0062) J	
						2-Hexanone	LCS %R	33.8%	61.2% to 139%	ND(0.0062) J	
						4-Methyl-2-pentanone	LCS %R	43.1%	65.1% to 135%	ND(0.0062) J	
						Acetone	CCAL %D	46.2%	<25%	0.026 J	
						Acetonitrile	ICAL RRF	0.005	>0.05	ND(1.2) J	
						Acrolein	ICAL RRF	0.042	>0.05	ND(0.076) J	
						Isobutanol	ICAL RRF	0.006	>0.05	ND(3.1) J	
						Methylene Chloride	Method Blank	-	-	0.011	
						Methylene Chloride	CCAL %D	49.3%	<25%	0.011 J	
						Methylene Chloride	LCS %R	157.0%	57.9% to 142%	0.011 J	
						Propionitrile	ICAL RRF	0.007	>0.05	ND(1.2) J	
0.05 101	DA 40 55 (4 0)	0/5/0007	0.1			trans-1,4-Dichloro-2-butene	LCS %R	20.1%	69.5% to 130%	ND(0.013) J	
G135-434	RAA9-E5 (4 - 6)	6/5/2007	Soil	Tier II	Yes	1,2-Dibromo-3-chloropropane 1,4-Dioxane	LCS %R ICAL RRF	18.5%	67.4% to 133%	ND(0.028) J ND(5.6) J	
						2-Butanone	CCAL %D	36.5%	<25%	ND(5.6) J ND(0.0056) J	1
						2-Chloroethylvinylether	ICAL RRF	0.015	>0.05	ND(0.0058) J	1
						2-Chloroethylvinylether	CCAL %D	26.7%	<25%	ND(0.028) J	1
					1	2-Hexanone	CCAL %D	35.0%	<25%	ND(0.0056) J	1
						2-Hexanone	LCS %R	33.8%	61.2% to 139%	ND(0.0056) J	1
						4-Methyl-2-pentanone	LCS %R	43.1%	65.1% to 135%	ND(0.0056) J	1
						Acetone	CCAL %D	46.2%	<25%	ND(0.0056) J	
						Acetonitrile	ICAL RRF	0.005	>0.05	ND(1.1) J	
						Acrolein	ICAL RRF	0.042	>0.05	ND(0.068) J	
						Isobutanol	ICAL RRF	0.006	>0.05	ND(2.8) J	
					1	Methylene Chloride	Method Blank	-	-	ND(0.0056) J	
						Methylene Chloride	CCAL %D	49.3%	<25%	ND(0.0056) J	
						Methylene Chloride	LCS %R	157.0%	57.9% to 142%	ND(0.0056) J	
						Propionitrile	ICAL RRF	0.007	>0.05	ND(1.1) J	
0.0E 101	DA 40 50 (0 4)	0/5/0007	0.1			trans-1,4-Dichloro-2-butene	LCS %R	20.1%	69.5% to 130%	ND(0.012) J	
G135-434	RAA9-F3 (0 - 1)	6/5/2007	Soil	Tier II	Yes	1,2-Dibromo-3-chloropropane	LCS %R	18.5%	67.4% to 133%	ND(0.026) J	
						1,4-Dioxane	ICAL RRF CCAL %D	0.001 36.5%	>0.05	ND(5.3) J 0.0060 J	
						2-Butanone 2-Chloroethylvinylether	ICAL RRF	36.5%	<25%	0.0060 J ND(0.026) J	1
						2-Chloroethylvinylether	CCAL %D	26.7%	<25%	ND(0.026) J ND(0.026) J	1
L l			1	1		00AL /00	20.1 /0	×2J /0	ND(0.020) J	1	

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
OCs (conti					1						
G135-434	RAA9-F3 (0 - 1)	6/5/2007	Soil	Tier II	Yes	2-Hexanone 2-Hexanone	CCAL %D LCS %R	35.0% 33.8%	<25% 61.2% to 139%	ND(0.0053) J ND(0.0053) J	
						4-Methyl-2-pentanone	LCS %R	43.1%	65.1% to 139%	ND(0.0053) J ND(0.0053) J	
						Acetone	CCAL %D	46.2%	<25%	0.038 J	
						Acetonitrile	ICAL RRF	0.005	>0.05	ND(1.1) J	
						Acrolein	ICAL RRF	0.042	>0.05	ND(0.065) J	
						Isobutanol	ICAL RRF	0.006	>0.05	ND(2.6) J	
						Methylene Chloride	Method Blank	-	-	ND(0.0053) J	
						Methylene Chloride	CCAL %D	49.3%	<25%	ND(0.0053) J	
						Methylene Chloride	LCS %R	157.0%	57.9% to 142%	ND(0.0053) J	
						Propionitrile	ICAL RRF	0.007	>0.05	ND(1.1) J	
3135-435	RAA9-07-RB-2	6/6/2007	Water	Tier II	Yes	trans-1,4-Dichloro-2-butene 1,2,3-Trichloropropane	LCS %R LCS %R	20.1%	69.5% to 130% 61.5% to 138%	ND(0.011) J ND(0.0010) J	
5130-430	RAA9-07-RD-2	0/0/2007	water	Tiel II	res	1,2,3-Trichloropropane	LCS %R LCS/LCSD RPD	165.0%	<30%	ND(0.0010) J	
						1,2-Dibromo-3-chloropropane	ICAL RRF	0.035	>0.05	ND(0.0050) J	
						1,4-Dioxane	ICAL RRF	0.000	>0.05	ND(0.0050) J	·
						Acetone	LCS %R	0.478	50.8% to 149%	0.0050 J	
						Acetone	ICAL RRF	0.029	>0.05	0.0050 J	
						Acetone	CCAL %D	60.8%	<25%	0.0050 J	
						Acetonitrile	ICAL RRF	0.003	>0.05	ND(0.020) J	
						Acrolein	ICAL RRF	0.013	>0.05	ND(0.025) J	
						Acrylonitrile	ICAL RRF	0.035	>0.05	ND(0.025) J	
						Isobutanol	ICAL RRF ICAL RRF	0.004	>0.05	ND(0.050) J ND(0.020) J	
						Propionitrile Tetrachloroethene	CCAL %D	34.2%	<25%	ND(0.020) J ND(0.0010) J	
3135-435	RAA9-A14 (0 - 1)	6/6/2007	Soil	Tier II	Yes	1.1-Dichloroethane	MS/MSD %R	67.4%, 70.2%	<25% 71.6% to 139%	ND(0.0063) J	
100 400	100107111(0 1)	0/0/2007	001			1,2-Dibromo-3-chloropropane	LCS/LCSD %R	24.1%, 21.2%	67.4% to 133%	ND(0.032) J	
						1,2-Dibromo-3-chloropropane	MS/MSD %R	18.3%, 19.0%	43.4% to 229%	ND(0.032) J	
						1,2-Dichloroethane	MS/MSD %R	68.7%, 70.5%	72.9% to 146%	ND(0.0063) J	
						1,2-Dichloropropane	MS/MSD %R	70.6%, 72.7%	76.1 to 136%	ND(0.0063) J	
						1,2-Dichloropropane	MS %R	82.9%	83.2% to 137%	ND(0.0063) J	
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(6.3) J	
						2-Chloroethylvinylether	ICAL RRF	0.015	>0.05	ND(0.032) J	
						2-Hexanone Acetone	CCAL %D CCAL %D	26.5% 48.0%	<25% <25%	ND(0.0063) J 0.032 J	
						Acetone	LCS %R	40.0%	<25% 50.8% to 149%	0.032 J	
						Acetonitrile	ICAL RRF	0.005	>0.05	ND(1.3) J	
						Acrolein	ICAL RRF	0.042	>0.05	ND(0.078) J	
						Bromodichloromethane	MS/MSD %R	69.4%, 71.2%	77.4% to 140%	ND(0.0063) J	
						Chloroform	MS/MSD %R	66.7%, 69.6%	71.1% to 143%	ND(0.0063) J	
						Chloromethane	MS/MSD %R	61.2%, 59.4%	69.1% to 138%	ND(0.0063) J	
						cis-1,3-Dichloropropene	MS %R	71.3%	72.1% to 146%	ND(0.0063) J	
						Dichlorodifluoromethane	MS/MSD %R	62.1%, 61.2%	81.6% to 130%	ND(0.0063) J	
						Ethylbenzene	MS %R CCAL %D	67.6% 40.5%	68.5% to 135%	ND(0.0063) J	
						Iodomethane Isobutanol	ICAL RRF	40.5%	<25% >0.05	ND(0.0063) J ND(3.2) J	
						Propionitrile	ICAL RRF	0.008	>0.05	ND(3.2) J ND(1.3) J	
						Styrene	MS %R	62.4%	65.7% to 133%	ND(0.0063) J	
						trans-1,3-Dichloropropene	MS/MSD %R	70.0%	72.5% to 152%	ND(0.0063) J	
				1	1	trans-1,4-Dichloro-2-butene	LCS/LCSD %R	21.2%, 19.8%	69.5% to 130%	ND(0.014) J	
						trans-1,4-Dichloro-2-butene	MS/MSD %R	17.2%, 17.5%	48.9% to 211%	ND(0.014) J	
						Vinyl Chloride	MS/MSD %R	68.8%, 66.6%	80.9% to 129%	ND(0.0063) J	
6135-435	RAA9-B11 (1 - 3)	6/6/2007	Soil	Tier II	Yes	1,2-Dibromo-3-chloropropane	LCS/LCSD %R	24.1%, 21.2%	67.4% to 133%	ND(0.019) J	
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(3.7) J	
						2-Chloroethylvinylether	ICAL RRF CCAL %D	0.015	>0.05 <25%	ND(0.019) J ND(0.0037) J	
						2-Hexanone Acetone	CCAL %D CCAL %D	26.5%	<25%	0.0042 J	
						Acetone	LCS %R	48.0%	<25% 50.8% to 149%	0.0042 J 0.0042 J	
						Acetonitrile	ICAL RRF	0.005	>0.05	ND(0.75) J	
						Acrolein	ICAL RRF	0.042	>0.05	ND(0.046) J	
						lodomethane	CCAL %D	40.5%	<25%	ND(0.0037) J	
						Isobutanol	ICAL RRF	0.006	>0.05	ND(1.9) J	
						Propionitrile	ICAL RRF	0.007	>0.05	ND(0.75) J	
	1			1	1	trans-1,4-Dichloro-2-butene	LCS/LCSD %R	21.2%, 19.8%	69.5% to 130%	ND(0.0080) J	

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
VOCs (conti	nued)										
G135-435	RAA9-G25 (0 - 1)	6/6/2007	Soil	Tier II	Yes	1,2-Dibromo-3-chloropropane	LCS/LCSD %R	24.1%, 21.2%	67.4% to 133%	ND(0.026) J	
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(5.1) J	
						2-Chloroethylvinylether	ICAL RRF	0.015	>0.05	ND(0.026) J	
						2-Hexanone	CCAL %D	26.5%	<25%	ND(0.0051) J	
						Acetone	LCS %R CCAL %D	47.8%	50.8% to 149% <25%	0.047 J 0.047 J	
						Acetonitrile	ICAL RRF	48.0%	<25%	ND(1.0) J	
						Acrolein	ICAL RRF	0.003	>0.05	ND(0.063) J	
						lodomethane	CCAL %D	40.5%	<25%	ND(0.0051) J	
						Isobutanol	ICAL RRF	0.006	>0.05	ND(2.6) J	
						Propionitrile	ICAL RRF	0.007	>0.05	ND(1.0) J	
						trans-1,4-Dichloro-2-butene	LCS/LCSD %R	21.2%, 19.8%	69.5% to 130%	ND(0.011) J	
G135-435	RAA9-I2 (0 - 1)	6/6/2007	Soil	Tier II	Yes	1,2-Dibromo-3-chloropropane	LCS/LCSD %R	24.1%, 21.2%	67.4% to 133%	ND(0.021) J	
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(4.2) J	
						2-Chloroethylvinylether	ICAL RRF	0.015	>0.05	ND(0.021) J	
						2-Hexanone	CCAL %D	26.5%	<25%	ND(0.0042) J	
						Acetone	LCS %R CCAL %D	47.8%	50.8% to 149% <25%	0.023 J 0.023 J	
						Acetonitrile	ICAL RRF	0.005	>0.05	ND(0.85) J	
						Acrolein	ICAL RRF	0.042	>0.05	ND(0.052) J	
						Iodomethane	CCAL %D	40.5%	<25%	ND(0.0042) J	
						Isobutanol	ICAL RRF	0.006	>0.05	ND(2.1) J	
						Propionitrile	ICAL RRF	0.007	>0.05	ND(0.85) J	
						trans-1,4-Dichloro-2-butene	LCS/LCSD %R	21.2%, 19.8%	69.5% to 130%	ND(0.0091) J	
G135-438	RAA9-A13 (8 - 10)	6/7/2007	Soil	Tier II	Yes	1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(5.1) J	
						2-Chloroethylvinylether	ICAL RRF	0.045	>0.05	ND(0.025) J	
						Acetonitrile	ICAL RRF	0.004	>0.05	ND(1.0) J	
						Acrolein Isobutanol	ICAL RRF ICAL RRF	0.031	>0.05	ND(0.063) J ND(2.5) J	
						Propionitrile	ICAL RRF	0.006	>0.05	ND(2.5) J ND(1.0) J	
						trans-1,4-Dichloro-2-butene	LCS/LCSD %R	19.6%, 18.3%	69.5 to 130%	ND(0.011) J	
G135-438	RAA9-D7 (10 - 12)	6/7/2007	Soil	Tier II	Yes	1.4-Dioxane	ICAL RRF	0.001	>0.05	ND(5.3) J	
						2-Chloroethylvinylether	ICAL RRF	0.045	>0.05	ND(0.027) J	
						Acetonitrile	ICAL RRF	0.004	>0.05	ND(1.1) J	
						Acrolein	ICAL RRF	0.031	>0.05	ND(0.065) J	
						Isobutanol	ICAL RRF	0.006	>0.05	ND(2.7) J	
						Propionitrile	ICAL RRF	0.007	>0.05	ND(1.1) J	
G135-438	RAA9-D9 (4 - 6)	6/7/2007	Soil	Tinell	Yes	trans-1,4-Dichloro-2-butene	LCS/LCSD %R ICAL RRF	19.6%, 18.3% 0.001	69.5 to 130% >0.05	ND(0.011) J	
G135-438	RAA9-D9 (4 - 6)	6/7/2007	501	Tier II	res	1,4-Dioxane 2-Chloroethylvinylether	ICAL RRF	0.001	>0.05	ND(4.5) J ND(0.022) J	
						Acetonitrile	ICAL RRF	0.043	>0.05	ND(0.89) J	
						Acrolein	ICAL RRF	0.031	>0.05	ND(0.055) J	
						Isobutanol	ICAL RRF	0.006	>0.05	ND(2.2) J	
						Propionitrile	ICAL RRF	0.007	>0.05	ND(0.89) J	
						trans-1,4-Dichloro-2-butene	LCS/LCSD %R	19.6%, 18.3%	69.5 to 130%	ND(0.0095) J	
G135-438	RAA9-I6 (2 - 4)	6/7/2007	Soil	Tier II	Yes	1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(5.0) J	
						2-Chloroethylvinylether	ICAL RRF	0.045	>0.05	ND(0.025) J	
				1	1	Acetonitrile Acrolein	ICAL RRF ICAL RRF	0.004	>0.05	ND(0.99) J ND(0.061) J	
						Isobutanol	ICAL RRF	0.031	>0.05	ND(0.061) J ND(2.5) J	
						Propionitrile	ICAL RRF	0.006	>0.05	ND(2.5) J ND(0.99) J	
						trans-1,4-Dichloro-2-butene	LCS/LCSD %R	19.6%, 18.3%	69.5 to 130%	ND(0.011) J	
SVOCs	1										1
G135-434	RAA-07-DUP-3 (1 - 6)	6/5/2007	Soil	Tier II	Yes	1-Naphthylamine	CCAL %D	73.4%	<25%	ND(1.7) J	Parent sample RAA9-E5
						2-Acetylaminofluorene	CCAL %D	36.9%	<25%	ND(0.68) J	
						2-Naphthylamine	CCAL %D	64.4%	<25%	ND(1.7) J	
						3-Methylcholanthrene	CCAL %D	45.7%	<25%	ND(0.34) J	
						4-Nitrophenol	CCAL %D	44.0%	<25%	ND(1.7) J	
						4-Nitroquinoline-1-oxide	CCAL %D	75.0%	<25%	ND(1.7) J	
						4-Nitroquinoline-1-oxide a,a'-Dimethylphenethylamine	ICAL RRF ICAL RRF	0.032	>0.05	ND(1.7) J	
					1	a,a-Dimethylphenethylamine Aniline	CCAL %D	34.9%	>0.05 <25%	ND(1.7) J ND(0.34) J	
						Aramite	CCAL %D CCAL %D	34.9%	<25%	ND(0.34) J ND(0.34) J	
	1	1		1		Aramite	ICAL RRF	0.003	>0.05	ND(0.34) J	

Sample Delivery Group No. SVOCs (cont	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
G135-434	RAA-07-DUP-3 (1 - 6)	6/5/2007	Soil	Tier II	Yes	Benzidine	CCAL %D	70.4%	<25%	ND(0.68) J	
0155-454	(AA-07-DOF-3 (1-0)	0/3/2007	301	TIEL II	165	Hexachlorocyclopentadiene	CCAL %D	36.4%	<25%	ND(0.68) J	
						Hexachloropropene	CCAL %D	28.2%	<25%	ND(0.68) J	
						Methapyrilene	CCAL %D	99.3%	<25%	ND(0.34) J	
						o-Toluidine	CCAL %D	93.2%	<25%	ND(0.34) J	
G135-434	RAA9-C9 (0 - 1)	6/5/2007	Soil	Tier II	Yes	1-Naphthylamine	CCAL %D	73.4%	<25%	ND(2.0) J	
						2-Acetylaminofluorene	CCAL %D	36.9%	<25%	ND(0.78) J	
						2-Naphthylamine 3-Methylcholanthrene	CCAL %D CCAL %D	64.4% 45.7%	<25% <25%	ND(2.0) J ND(0.39) J	
						4-Nitrophenol	CCAL %D	43.7%	<25%	ND(2.0) J	
						4-Nitroquinoline-1-oxide	CCAL %D	75.0%	<25%	ND(2.0) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.032	>0.05	ND(2.0) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.012	>0.05	ND(2.0) J	
						Aniline	CCAL %D	34.9%	<25%	ND(0.39) J	
						Aramite	CCAL %D	33.3%	<25%	ND(0.39) J	
						Aramite Benzidine	ICAL RRF CCAL %D	0.003	>0.05 <25%	ND(0.39) J ND(0.78) J	
						Hexachlorocyclopentadiene	CCAL %D CCAL %D	36.4%	<25%	ND(0.78) J ND(0.78) J	
						Hexachloropropene	CCAL %D	28.2%	<25%	ND(0.78) J	
						Methapyrilene	CCAL %D	99.3%	<25%	ND(0.39) J	
						o-Toluidine	CCAL %D	93.2%	<25%	ND(0.39) J	
G135-434	RAA9-E5 (1 - 6)	6/5/2007	Soil	Tier II	Yes	1-Naphthylamine	CCAL %D	73.4%	<25%	ND(1.7) J	
						2-Acetylaminofluorene	CCAL %D	36.9%	<25%	ND(0.67) J	
						2-Naphthylamine	CCAL %D	64.4%	<25%	ND(1.7) J	
						3-Methylcholanthrene 4-Nitrophenol	CCAL %D CCAL %D	45.7% 44.0%	<25% <25%	ND(0.34) J ND(1.7) J	
						4-Nitrophenoi 4-Nitroquinoline-1-oxide	CCAL %D CCAL %D	75.0%	<25%	ND(1.7) J ND(1.7) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.032	>0.05	ND(1.7) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.012	>0.05	ND(1.7) J	
						Aniline	CCAL %D	34.9%	<25%	ND(0.34) J	
						Aramite	CCAL %D	33.3%	<25%	ND(0.34) J	
						Aramite	ICAL RRF	0.003	>0.05	ND(0.34) J	
						Benzidine	CCAL %D CCAL %D	70.4%	<25%	ND(0.67) J	
						Hexachlorocyclopentadiene Hexachloropropene	CCAL %D	28.2%	<25% <25%	ND(0.67) J ND(0.67) J	
						Methapyrilene	CCAL %D	99.3%	<25%	ND(0.34) J	
						o-Toluidine	CCAL %D	93.2%	<25%	ND(0.34) J	
G135-434	RAA9-F3 (0 - 1)	6/5/2007	Soil	Tier II	Yes	1-Naphthylamine	CCAL %D	73.4%	<25%	ND(1.7) J	
						2-Acetylaminofluorene	CCAL %D	36.9%	<25%	ND(0.66) J	
						2-Naphthylamine	CCAL %D	64.4%	<25%	ND(1.7) J	
						3-Methylcholanthrene	CCAL %D	45.7%	<25%	ND(0.33) J	
						4-Nitrophenol 4-Nitroquinoline-1-oxide	CCAL %D CCAL %D	44.0% 75.0%	<25% <25%	ND(1.7) J ND(1.7) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.032	>0.05	ND(1.7) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.012	>0.05	ND(1.7) J	
						Aniline	CCAL %D	34.9%	<25%	ND(0.33) J	
						Aramite	CCAL %D	33.3%	<25%	ND(0.33) J	
						Aramite	ICAL RRF	0.003	>0.05	ND(0.33) J	
						Benzidine	CCAL %D	70.4%	<25%	ND(0.66) J	
						Hexachlorocyclopentadiene	CCAL %D	36.4%	<25%	ND(0.66) J	
						Hexachloropropene Methapyrilene	CCAL %D CCAL %D	28.2%	<25% <25%	ND(0.66) J ND(0.33) J	
						o-Toluidine	CCAL %D	99.3%	<25%	ND(0.33) J ND(0.33) J	
G135-435	RAA9-07-RB-2	6/6/2007	Water	Tier II	Yes	1-Naphthylamine	CCAL %D	74.0%	<25%	ND(0.050) J	
						2-Acetylaminofluorene	CCAL %D	43.7%	<25%	ND(0.020) J	
						2-Naphthylamine	CCAL %D	82.8%	<25%	ND(0.050) J	
						3-Methylcholanthrene	CCAL %D	49.3%	<25%	ND(0.010) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.032	>0.05	ND(0.050) J	
						4-Nitroquinoline-1-oxide	CCAL %D	68.8%	<25%	ND(0.050) J	
						a,a'-Dimethylphenethylamine	ICAL RRF CCAL %D	0.012 91.7%	>0.05	ND(0.050) J	
						a,a'-Dimethylphenethylamine Aniline	CCAL %D CCAL %D	91.7% 29.9%	<25% <25%	ND(0.050) J ND(0.010) J	
						Aramite	ICAL %D	0.003	>0.05	ND(0.010) J	
	1					Benzidine	CCAL %D	80.6%	<25%	ND(0.020) J	

Sample Delivery				Validation							
Group No.	Sample ID	Date Collected	Matrix	Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
SVOCs (cont G135-435	RAA9-07-RB-2	6/6/2007	Water	Tier II	Yes	Dibenzo(a,h)anthracene	CCAL %D	30.8%	<25%	ND(0.010) J	
						Methapyrilene	CCAL %D	83.1%	<25%	ND(0.010) J	
						Nitrobenzene	LCS %R	3.1%	56.2% to 117%	R	
G135-435	RAA9-A14 (0 - 1)	6/6/2007	Soil	Tier II	Yes	o-Toluidine 1-Naphthylamine	CCAL %D CCAL %D	93.1% 74.0%	<25% <25%	ND(0.010) J ND(1.8) J	
G135-435	RAA9-A14 (0 - 1)	0/0/2007	301	TIELI	Tes	2-Acetylaminofluorene	CCAL %D	43.7%	<25%	ND(0.71) J	
						2-Naphthylamine	CCAL %D	82.8%	<25%	ND(0.71) 3 ND(1.8) J	
						3-Methylcholanthrene	CCAL %D	49.3%	<25%	ND(0.36) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.032	>0.05	ND(1.8) J	
						4-Nitroquinoline-1-oxide	CCAL %D	68.8%	<25%	ND(1.8) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.012	>0.05	ND(1.8) J	
						a,a'-Dimethylphenethylamine	CCAL %D CCAL %D	91.7% 29.9%	<25%	ND(1.8) J	
						Aniline Aramite	ICAL RRF	0.003	<25% >0.05	ND(0.36) J ND(0.36) J	
						Benzidine	CCAL %D	80.6%	<25%	ND(0.36) J ND(0.71) J	
						Benzo(k)fluoranthene	LCS %R	82.2%	85.3% to 142%	ND(0.36) J	
						Dibenzo(a,h)anthracene	CCAL %D	30.8%	<25%	ND(0.36) J	
						Methapyrilene	CCAL %D	83.1%	<25%	ND(0.36) J	
						o-Toluidine	CCAL %D	93.1%	<25%	ND(0.36) J	
G135-435	RAA9-B11 (1 - 6)	6/6/2007	Soil	Tier II	Yes	1-Naphthylamine	CCAL %D	74.0%	<25%	ND(1.7) J	
						2-Acetylaminofluorene	CCAL %D	43.7%	<25%	ND(0.68) J	
						2-Naphthylamine 3-Methylcholanthrene	CCAL %D CCAL %D	82.8% 49.3%	<25% <25%	ND(1.7) J ND(0.34) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	49.3%	<25%	ND(0.34) J ND(1.7) J	
						4-Nitroquinoline-1-oxide	CCAL %D	68.8%	<25%	ND(1.7) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.012	>0.05	ND(1.7) J	
						a,a'-Dimethylphenethylamine	CCAL %D	91.7%	<25%	ND(1.7) J	
						Aniline	CCAL %D	29.9%	<25%	ND(0.34) J	
						Aramite	ICAL RRF	0.003	>0.05	ND(0.34) J	
						Benzidine	CCAL %D	80.6%	<25%	ND(0.68) J	
						Benzo(k)fluoranthene Dibenzo(a.h)anthracene	LCS %R CCAL %D	82.2%	85.3% to 142% <25%	ND(0.34) J ND(0.34) J	
						Dibenzo(a,h)anthracene	MSD %R	30.8%	<25% 62.0% to 122%	ND(0.34) J ND(0.34) J	
						Methapyrilene	CCAL %D	83.1%	<25%	ND(0.34) J	
						o-Toluidine	CCAL %D	93.1%	<25%	ND(0.34) J	
G135-435	RAA9-G25 (0 - 1)	6/6/2007	Soil	Tier II	Yes	1-Naphthylamine	CCAL %D	74.0%	<25%	ND(1.8) J	
	. ,					2-Acetylaminofluorene	CCAL %D	43.7%	<25%	ND(0.71) J	
						2-Naphthylamine	CCAL %D	82.8%	<25%	ND(1.8) J	
						3-Methylcholanthrene	CCAL %D	49.3%	<25%	ND(0.35) J	
						4-Nitroquinoline-1-oxide 4-Nitroquinoline-1-oxide	ICAL RRF CCAL %D	0.032 68.8%	>0.05	ND(1.8) J ND(1.8) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.012	<25% >0.05	ND(1.8) J ND(1.8) J	
						a,a'-Dimethylphenethylamine	CCAL %D	91.7%	<25%	ND(1.8) J	
						Aniline	CCAL %D	29.9%	<25%	ND(0.35) J	
1						Aramite	ICAL RRF	0.003	>0.05	ND(0.35) J	
1						Benzidine	CCAL %D	80.6%	<25%	ND(0.71) J	
1						Benzo(k)fluoranthene	LCS %R	82.2%	85.3% to 142%	0.62 J	
						Dibenzo(a,h)anthracene	CCAL %D	30.8%	<25%	0.40 J	
						Methapyrilene o-Toluidine	CCAL %D CCAL %D	83.1% 93.1%	<25% <25%	ND(0.35) J ND(0.35) J	
G135-435	RAA9-I2 (0 - 1)	6/6/2007	Soil	Tier II	Yes	0-1 oluidine 1-Naphthylamine	CCAL %D	93.1%	<25%	ND(0.35) J ND(35) J	
0100 400		0.0/2007	001		103	2-Acetylaminofluorene	CCAL %D	41.3%	<25%	ND(35) J ND(14) J	
1						2-Naphthylamine	CCAL %D	66.7%	<25%	ND(35) J	
1						3-Methylcholanthrene	CCAL %D	48.1%	<25%	ND(7.0) J	
1						4-Nitroquinoline-1-oxide	ICAL RRF	0.032	>0.05	ND(35) J	
1						4-Nitroquinoline-1-oxide	CCAL %D	71.9%	<25%	ND(35) J	
						a,a'-Dimethylphenethylamine	ICAL RRF	0.012	>0.05	ND(35) J	
					1	a,a'-Dimethylphenethylamine	CCAL %D ICAL RRF	75.0%	<25%	ND(35) J ND(7.0) J	
					1	Aramite Benzidine	CCAL %D	0.003	>0.05 <25%	ND(7.0) J 14 J	
1						Benzo(g,h,i)perylene	CCAL %D	26.8%	<25%	14 J 19 J	
1						Benzo(k)fluoranthene	LCS %R	82.2%	85.3% to 142%	19 J	
						Hexachlorophene	CCAL %D	27.9%	<25%	ND(7.0) J	
						Indeno(1,2,3-cd)pyrene	CCAL %D	25.4%	<25%	19 J	

BARADY (6 - 15)         BARADY (7 - 15)         BARADY (7	Sample Delivery				Validation							
B184.68         BAX6F2 (F-1)			Date Collected	Matrix	Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
Bitschligunne         CDA (ND)         E1.50         ADB (N)         NO(10,1)           2013-50         RABA13 (5 - 15)         \$77.90         Sol         Terl II         Yes         No(10,1)         40.00			6/6/2007	Soil	Tior II	Voc	o Toluidipo	CCAL %D	02.0%	<25%	ND(7.0) 1	
Bits         Add 50 (II - 5)         FUND         61 %         -0.5%         N0.5% (J)           21.401/minimizer         CCA, 50         10.7%         -0.5%         N0.5% (J)           31.801/minimizer         CCA, 50         41%         -0.5%         N0.5% (J)           31.801/minimizer         CCA, 50         41%         -0.5%         N0.5% (J)           31.801/minimizer         CCA, 50         41%         -0.5%         N0.5% (J)           31.801/minimizer         CCA, 50         4.5%         -0.5%         N0.16 (J)           31.801/minimizer         CCA, 50         6.5%         -0.5%         N0.16 (J)           31.801/minimizer         CCA, 50         6.5%         -0.5%         N0.16 (J)           31.801/minimizer         CCA, 50         6.5%         -0.5%         N0.05 (J)           91.801/minimizer         CCA, 50         6.5%         -0.5%         N0.05 (J)           91.801/minimizer         CCA, 50         6.5%         10.5%         N0.05 (J)           91.801/minimizer         CCA, 50         10.5%         0.5%         N0.05 (J)           91.801/minimizer         CCA, 50         10.5%         0.5%         N0.05 (J)           91.801/minimizer         CCA, 50 <t< td=""><td>G135-438</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	G135-438											
33-5600000000000000000000000000000000000		,							59.1%			
Singer Series         Solution Series         CDL 100         64 1%         Copy 100 37 1           Singer Series         CAL 100         CAL 100         Copy 100 37 1												
Hateogramma Lange L												
135-48         AAAB 07 (6-15)         67/2007         Soil         Ture II         Yes         Advance II costs         COL NS         Holi 0.1         Holi 0.1           6135-48         RAAB 07 (6-15)         67/2007         Soil         Ture II         Yes         RAAB 07 (6-15)         87/2007         Soil         Ture III         Yes         RAAB 07 (6-15)         87/2007         Soil         Ture IIII         Ture IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII												
BANG D7 (6-15)         672007         Sol         Ter II         Yes         Provide Provi												
Image: Probability of the stand												
Image: Stand Problem: Stand												
Beschellungener         Ess Number 1         SS Number 2								ICAL RRF	0.003	>0.05		
Base of the second sharing and the second sha												
Index (1.3.3.d)prime         CCAL %D         28.0%         AD057)         Image: Control %D         Contro %D         Control %D         Con												
G135-438         RAA-D7 (6 - 15)         6772007         Soil         Ter II         Yes         Classifythmene         CCAL VD         6175         Soil         ND(0 37) J           G135-438         RAA-D7 (6 - 15)         6772007         Soil         Ter II         Yes         Classifythmene         CCAL VD         6175.5         -50.6         ND(1 7) J           G135-438         RAA-D7 (6 - 15)         6772007         Soil         Ter II         Yes         Classifythmene         CCAL VD         617.5%         -50.6         ND(1 7) J           G135-438         RAA-D7 (6 - 15)         6772007         Soil         Ter II         Yes         Classifythmene         CCAL VD         617.5%         -50.5         ND(1 7) J           G135-438         RAA-D7 (1 - 8)         6772007         Soil         Ter II         Yes         Classifythmene         CCAL VD         60.7%         40.7 J         -           G135-438         RAA-D7 (1 - 8)         6772007         Soil         Ter II         Yes         Ter II         Yes         Classifythmene         CCAL VD         60.7%         40.7 J         -         -         -         -         -         -         -         -         -         -         -         -         -<												
G136-438         RAA9-D7 (6-16)         67/2007         Soil         Tier II         Yes         L14gethydamine LAXQ9         CAX, VD         61.5%         -0.05         MO(1,7) I           C4X89         NAA         NO												
6135-438         RAA-90 (1 - 6)         87/2007         Soil         Ter II         Yes         Provide P	G135-438	RAA9-D7 (6 - 15)	6/7/2007	Soil	Tier II	Ves						
	0100 400	10445-07 (0 - 15)	0///2007	001	TICI II	103						
6135-438         RA8-b9 (1 - 6)         67/2007         Sol         Ter II         Yes         Participation - Code (CAL, %p)         62,4%         ND(2,5)           6135-438         RA8-b9 (1 - 6)         67/2007         Sol         Ter II         Yes         Participation - Code (CAL, %p)         62,4%         ND(2,5)         0.032         5.005         ND(2,5)         0.031         6.035         0.035												
6135-438         RA8-09 (1 - 6)         6772007         Soil         Ter II         Yes         2-Nappinghimmer         CCAL, %D         32.9%         -20%         NO1.7, J							3,3'-Dichlorobenzidine					
G135-438         RA9-D0 (1 - 6)         6/7/2007         Soil         Ter II         Yes         Finite CAL, NP         0.012         -0.05         NO1(7, 7)         Image: Control of Contro of Control of Control of C												
613-438         RA9-D9 (1 - 6)         67/2007         Soil         Ter II         Yes         Numery hyperethylamine (CAL, RNF)         0.012         >0.06         ND(17, J.           G135-438         RA9-D9 (1 - 6)         67/2007         Soil         Ter II         Yes         Numery hyperethylamine (CAL, RNF)         0.003         >0.065         ND(0.34) J.           G135-438         RA9-D9 (1 - 6)         67/2007         Soil         Ter II         Yes         Numery hyperethylamine (CAL, RND)         26.25%         65.37%         ND(0.34) J.           G135-438         RA9-D9 (1 - 6)         67/2007         Soil         Ter II         Yes         Numery hyperethylamine (CAL, %D)         26.26%         ND(0.34) J.           G135-438         RA9-D9 (1 - 6)         67/2007         Soil         Ter II         Yes         Numery hyperethylamine (CAL, %D)         61.5%         -20.66         ND(1.8) J.           G135-438         RA9-D9 (1 - 6)         67/2007         Soil         Ter II         Yes         Numery hyperethylamine (CAL, %D)         61.5%         -20.66         ND(1.8) J.           G135-438         RA9-F6 (1 - 6)         67/2007         Soil         Ter II         Yes         Numery hyperethylamine (CAL, %D)         22.4%         AC26%         ND(1.6) J. <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
G135-438         RA49-09 (1 - 6)         67/2007         Soil         Ter II         Yes         Yes         CAL.RFF         0.003         >0.05         ND(0.8) J           G135-438         RA49-09 (1 - 6)         67/2007         Soil         Ter II         Yes         CAL.RFF         0.003         >0.05         ND(0.34) J           G135-438         RA49-09 (1 - 6)         67/2007         Soil         Ter II         Yes         CAL.%D         28.8%         -25%         ND(0.34) J           G135-438         RA49-09 (1 - 6)         67/2007         Soil         Ter II         Yes         14xphthysmine         CCAL.%D         28.6%         -25%         ND(0.34) J           G135-438         RA49-09 (1 - 6)         67/2007         Soil         Ter II         Yes         14xphthysmine         CCAL.%D         28.7%         ND(0.31) J           G135-438         RA49-09 (1 - 6)         67/2007         Soil         Ter II         Yes         14xphthysmine         CCAL.%D         93.7%         -25%         ND(0.73) J           G135-438         RA49-09 (1 - 6)         G7/2007         Soil         Ter II         Yes         14xphthysmine         CCAL.%D         93.7%         -25%         ND(0.73) J         -0.6%           G												
G135-438         RA49-D9 (1 - 6)         6772007         Soil         Ter II         Yes         separation         CCAL %D         48.0%         6-25%         NO(0.68) _1           G135-438         RA49-D9 (1 - 6)         6772007         Soil         Ter II         Yes         Yes         CCAL %D         62.0%         NO(0.34) _1           G135-438         RA49-D9 (1 - 6)         6772007         Soil         Ter II         Yes         Yes         Yes         Soil %D (2.6%         NO(0.34) _1           G135-438         RA49-D9 (1 - 6)         6772007         Soil         Ter II         Yes         Yes         Yes         Yes         NO(0.48) _1         CCAL %D         63.0%         -26%         NO(0.70) _1           G135-438         RA49-D9 (1 - 6)         6772007         Soil         Ter II         Yes         Yes         Yes         NO(0.71) _1         -26%         NO(0.71) _1           G135-438         RA49-D9 (1 - 6)         6772007         Soil         Ter II         Yes         Yes         Xi-Apphylanethyla												
G135-438         RA9-09 (1 - 6)         67/2007         Sol         Ter II         Yes         1-Aughthysine         CCAL %D         32.2%         -25%         ND(0.34)												
Gamma         Barton         Indexection (2,3) scappyrene         CCAL %0         26.8%         ND(0.34) J           G135-438         RAA9-D9 (1-6)         67/2007         Soil         Ter II         Yes         1-Napthylamine         CCAL %0         61.5%         >0.05         ND(1.8) J           G135-438         RAA9-D9 (1-6)         67/2007         Soil         Ter II         Yes         1-Napthylamine         CCAL %0         61.5%         >0.05         ND(1.8) J           G135-438         RAA9-D9 (1-6)         67/2007         Soil         Ter II         Yes         1-Napthylamine         CCAL %0         112.0%         -22%         ND(0.7) J           G135-438         Control Contro Control Control Contro Control Control Contro Contro									82.2%			
Control         COL (%)         P3.0%         -25%         ND(0.34) J           G135-438         RA9-D9 (1-6)         67/2007         Soil         Ter II         Yes         1							Dibenzo(a,h)anthracene		32.2%		ND(0.34) J	
G135-438         RAA9-D9 (1 - 6)         67/2007         Soil         Tier II         Yes         1-Nephylamine         CCAL %D         615%         0.05         ND(1,6) J           2-Apetylaminollouren         CCAL %D         112.0%         -25%         ND(0,7) J         -           2-Naphylamine         CCAL %D         112.0%         -26%         ND(0,7) J         -           3-Michtorbenzäline         CCAL %D         142.0%         -26%         ND(0,7) J         -           3-Michtorbenzäline         CCAL %D         34.4%         -25%         ND(0,7) J         -           3-Michtorbenzäline         CCAL %D         37.5%         -25%         ND(0,7) J         -           3-Michtorbenzäline         CCAL %D         37.5%         -25%         ND(0,7) J         -           4-Nitroquinoline-1-oxide         CCAL %D         37.5%         -25%         ND(1,8) J         -           4-Nitroquinoline-1-oxide         CCAL %D         83.3%         -25%         ND(0,7) J         -           6135-438         AA9-16 (1-6)         6772007         Soil         Tier II         Yes         1-Nephylenethy												
AAB-16 (1 - 6)         67/2007         Soil         Tier II         Yes         1-Aceytamine         CCAL %D         152.0%         ND(7.3) J           G135-438         RAAB-16 (1 - 6)         67/2007         Soil         Tier II         Yes         1-Aceytamine         CCAL %D         122.0%         -225%         ND(7.3) J           G135-438         RAAB-16 (1 - 6)         67/2007         Soil         Tier II         Yes         1-Aceytamine         CCAL %D         122.0%         -225%         ND(7.3) J           G135-438         RAAB-16 (1 - 6)         67/2007         Soil         Tier II         Yes         1-Aceytamine         CCAL %D         32.0         10.0 <t< td=""><td>0.105.100</td><td>B110 B0 (4 0)</td><td>0/17/0007</td><td>0."</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	0.105.100	B110 B0 (4 0)	0/17/0007	0."	-							
G135-438         RA9-16 (1 - 6)         67/2007         Soil         Ter II         Yes         Yes         CAL %D         3.2-01/01/01/01         Yes         ND(1.8).1            G135-438         RA9-16 (1 - 6)         67/2007         Soil         Ter II         Yes         Yes <td>G135-438</td> <td>RAA9-D9 (1 - 6)</td> <td>6/7/2007</td> <td>Soil</td> <td>Lier II</td> <td>Yes</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	G135-438	RAA9-D9 (1 - 6)	6/7/2007	Soil	Lier II	Yes						
A RA9-16 (1 - 6)         6772007         Soil         Tier II         Yes												
G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Yes         1-Narpotrylone (CAL, %D)         48.1%         -25%         ND(0.37) J           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Yes         CAL, %D         37.5%         225%         ND(0.37) J           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Yes         CAL, %D         83.3%         -25%         ND(0.37) J           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Yes         CAL, %D         80.2%         -25%         ND(0.37) J           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Yes         CAL, %D         26.5%         ND(0.37) J           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Yes         CAL, %D         61.5%         -25%         ND(0.37) J           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Yes         1-Naphthylamine         CCAL, %D         61.5%         -25%         ND(0.37) J           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier												
G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Yes         1Appthy/amine         CCAL, %D         37.5%         -2.65%         ND(1.8) J           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Soil         First Name         CCAL, %D         8.3%         -2.25%         ND(1.8) J         -           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Soil         CCAL, %D         8.2%         8.6.3%         ND(0.37) J           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Yes         1.Aghthy/amine         CCCAL, %D         2.2%         8.5.3%         ND(0.37) J           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Yes         1.Aghthy/amine         CCCAL, %D         2.2%         8.2%         ND(0.37) J           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Yes         1.Aghthy/amine         CCCAL, %D         3.2%         2.2%         ND(0.37) J           G135-438         RAA9-I6 (1 - 6)         67/2007         Soil         Tier II         Yes         1.Aghthy/amine         CCCAL, %D         9.3%												
G135-438         RAA9-16 (1 - 6)         67/2007         Soil         Tier II         Yes         Value         CCAL_RRF         0.012         >0.05         ND(1.8) J            G135-438         RAA9-16 (1 - 6)         67/2007         Soil         Tier II         Value         CCAL_VaD         83.3%         <25%							4-Nitroquinoline-1-oxide	ICAL RRF	0.032	>0.05	ND(1.8) J	
k         k												
Aramie         ICAL RFF         0.003         >0.05         ND(0.37) J           Benzoline         ICAL RFF         0.003         >0.05         ND(0.37) J           Benzoline         ICAL %D         48.0%         <25%												
Barborn Strengt         Barborn St												
Benzu(h]fluoranthene         LCS %R         82.2%         85.3% to 14%         ND(0.37) J           G135-438         RAA9-16 (1 - 6)         6/7/2007         Soil         Tier II         Yes         CCAL %D         22.6%         25.6%         ND(0.37) J           G135-438         RAA9-16 (1 - 6)         6/7/2007         Soil         Tier II         Yes         CCAL %D         26.8%         -25%         ND(0.37) J           G135-438         RAA9-16 (1 - 6)         6/7/2007         Soil         Tier II         Yes         CCAL %D         93.0%         -25%         ND(0.37) J           G135-438         RAA9-16 (1 - 6)         6/7/2007         Soil         Tier II         Yes         CCAL %D         93.0%         -25%         ND(0.68) J           G135-438         RAA9-16 (1 - 6)         6/7/2007         Soil         Tier II         Yes         CCAL %D         93.0%         -25%         ND(0.68) J           G135-438         RAA9-16 (1 - 6)         6/7/2007         Soil         Tier II         Yes         2-Napthtylamine         CCAL %D         93.0%         -25%         ND(0.68) J           G135-010robenzigine         CCAL %D         112.0%         -225%         ND(0.7) J         -           G135-010robenzigine	1				1							
Bit Provide         Bit Provide         Dibero(a,i)antracene         CCAL %D         32.2%         <25%         ND(0.37) J           G135-438         RAA9-16 (1 - 6)         6/7/2007         Soil         Tier II         Yes         CCAL %D         26.4 %D         93.0%         <25%	1				1					85.3% to 142%		
Inden(1,2,3-cd)pyrene         CCAL %D         28.8%         <25%         ND(0.37) J           G135-438         RAA9-16 (1 - 6)         6/7/2007         Soil         Tier II         Yes         1-Naphthylamine         CCAL %D         61.5%         >>0.05         ND(1.7) J           G135-438         RAA9-16 (1 - 6)         6/7/2007         Soil         Tier II         Yes         1-Naphthylamine         CCAL %D         61.5%         >>0.05         ND(1.7) J           G135-438         RAA9-16 (1 - 6)         6/7/2007         Soil         Tier II         Yes         1-Naphthylamine         CCAL %D         50.1%         <25%	1				1							
G135-438         RAA9-I6 (1 - 6)         6/7/2007         Soil         Tier II         Yes         1-Naphthylamine         CCAL %D         615%         >0.05         ND(1.7)_J           2-Acetylaminofluorene         CCAL %D         59.1%         <25%								CCAL %D				
2-Acetylaminofluorene       CCAL %D       59.1%       <25%												
2-Naphthylamine         CCAL %D         112.0%         <25%	G135-438	RAA9-I6 (1 - 6)	6/7/2007	Soil	Tier II	Yes						
3.3*Dichlorobenzidine         CCAL %D         32.4%         <25%         ND(0.68) J           3*Methylcholanthrene         CCAL %D         44.1%         <25%	1				1							
3-Methylcholanthrene         CCAL %D         48.1%         <25%         ND(0.34) J           4-Nitroquinoline-1-oxide         ICAL RF         0.032         >0.05         ND(1.7) J           4-Nitroquinoline-1-oxide         CCAL %D         37.5%         <25%	1				1							
4-Nitroquinoline-1-oxide         ICAL RF         0.032         >0.05         ND(1.7) J           4-Nitroquinoline-1-oxide         CCAL %D         37.5%         <25%	1				1							
4-Nitroquinoline-1-oxide         CCAL %D         37.5%         <25%         ND(1.7) J           a.a <sup>+</sup> Dimethylphenethylamine         ICAL RRF         0.012         >0.05         ND(1.7) J           a.a <sup>+</sup> Dimethylphenethylamine         ICAL %D         83.3%         <25%	1				1							
a.a^-Dimethylphenethylamine         ICAL.RRF         0.012         >0.05         ND(1.7)_J           a.a^-Dimethylphenethylamine         ICAL.RRF         0.003         >25%         ND(1.7)_J           Aramite         ICAL.RRF         0.003         >0.05         ND(0.34)_J           Berzcikine         ICAL.RRF         0.003         >25%         ND(0.34)_J           Berzcikine         ICAL.RRF         0.003         >40.0%         <25%					1							
Aramite         ICAL RRF         0.003         >0.05         ND(0.34) J           Benzoline         CCAL %D         48.0%         <25%	1				1		a,a'-Dimethylphenethylamine	ICAL RRF	0.012	>0.05	ND(1.7) J	
Benzidine         CCAL %D         48.0%         <25%         ND(0.68) J           Benzo(k)fluoranthene         LCS %R         82.2%         85.3% to 142%         ND(0.34) J           Dibenzo(a,h)anthracene         CCAL %D         32.2%         <25%					1							
Benzo(k)fluoranthene         LCS %R         82.2%         85.3% to 142%         ND(0.34) J           Dibenzo(a,h)anthracene         CCAL %D         32.2%         <25%					1		Aramite				ND(0.34) J	
Dibenzo(a,h)anthracene         CCAL %D         32.2%         <25%         ND(0.34) J           Indeno(1,2,3-cd)pyrene         CCAL %D         26.8%         <25%					1							
Indeno(1,2,3-cd)pyrene CCAL %D 26.8% <25% ND(0.34) J	1				1							
	1				1							
In-Toluidine ICCAL %D 93.0% >25% ND(0.34) L	1				1		o-Toluidine	CCAL %D	93.0%	<25%	ND(0.34) J	

Sample Delivery				Validation							
Group No.	Sample ID	Date Collected	Matrix	Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
PCDDs/PCD		Date Collected	Matrix	Levei	Qualification	Compound	QA/QC Farameter	value	Control Linits	Quanneu Result	Notes
G135-434	RAA-07-DUP-3 (1 - 6)	6/5/2007	0-1	The H	N	1		1		1	Descrit servels DAAO EF
	RAA-07-DUP-3 (1 - 6) RAA9-C9 (0 - 1)	6/5/2007	Soil	Tier II Tier II	No No						Parent sample RAA9-E5
G135-434 G135-434		6/5/2007	Soil	Tier II							
	RAA9-E5 (1 - 6) RAA9-F3 (0 - 1)	6/5/2007	Soil		No						
G135-434 G135-435	RAA9-F3 (0 - 1) RAA9-07-RB-2	6/5/2007	Water	Tier II Tier II	No No						
				Tier II							
G135-435 G135-435	RAA9-A14 (0 - 1) RAA9-B11 (1 - 6)	6/6/2007 6/6/2007	Soil	Tier II	No No						
G135-435	RAA9-G25 (0 - 1)	6/6/2007	Soil	Tier II	No	0.000		00.00/	050/ 4500/	0.0047.1	
G135-435	RAA9-I2 (0 - 1)	6/6/2007 6/7/2007	Soil	Tier II	Yes	OCDD	Internal Standard C12-OCDD %R	23.8%	25%-150%	0.0017 J	
G135-438	RAA9-A13 (6 - 15)			Tier II							
G135-438	RAA9-D7 (6 - 15)	6/7/2007	Soil	Tier II	No						
G135-438	RAA9-D9 (1 - 6)	6/7/2007		Tier II	No						
G135-438	RAA9-I6 (1 - 6)	6/7/2007	Soil	Tier II	No						
Cyanides/Su											
G135-434	RAA-07-DUP-3 (1 - 6)	6/5/2007	Soil	Tier II	Yes	Sulfide	MS %R	51.0%	75% to 125%	ND(4.80) J	Parent sample RAA9-E5
G135-434	RAA9-C9 (0 - 1)	6/5/2007	Soil	Tier II	Yes	Sulfide	MS %R	51.0%	75% to 125%	ND(4.80) J	
G135-434	RAA9-E5 (1 - 6)	6/5/2007	Soil	Tier II	Yes	Sulfide	MS %R	51.0%	75% to 125%	ND(5.60) J	
G135-434	RAA9-F3 (0 - 1)	6/5/2007	Soil	Tier II	Yes	Sulfide	MS %R	51.0%	75% to 125%	ND(5.40) J	
G135-435	RAA9-07-RB-2	6/6/2007	Water	Tier II	No						
G135-435	RAA9-A14 (0 - 1)	6/6/2007	Soil	Tier II	Yes	Sulfide	MS %R	66.0%	75% to 125%	ND(5.80) J	
G135-435	RAA9-B11 (1 - 6)	6/6/2007	Soil	Tier II	Yes	Sulfide	MS %R	66.0%	75% to 125%	ND(5.10) J	
G135-435	RAA9-G25 (0 - 1)	6/6/2007	Soil	Tier II	Yes	Sulfide	MS %R	66.0%	75% to 125%	ND(5.80) J	
G135-435	RAA9-I2 (0 - 1)	6/6/2007	Soil	Tier II	Yes	Sulfide	MS %R	66.0%	75% to 125%	ND(5.20) J	
G135-438	RAA9-A13 (6 - 15)	6/7/2007	Soil	Tier II	No						
G135-438	RAA9-D7 (6 - 15)	6/7/2007	Soil	Tier II	No						
G135-438	RAA9-D9 (1 - 6)	6/7/2007	Soil	Tier II	No						
G135-438	RAA9-I6 (1 - 6)	6/7/2007	Soil	Tier II	No						