

GE 159 Plastics Avenue Pittsfield, MA 01201 USA

Transmitted via Overnight Courier

April 14, 2009

Mr. Dean Tagliaferro U.S. Environmental Protection Agency c/o Weston Solutions 10 Lyman Street Pittsfield, Massachusetts 01201

Re: GE-Pittsfield/Housatonic River Site Newell Street Area II (GECD450) Third Addendum to Final Removal Design/Removal Action Work Plan

Dear Mr. Tagliaferro:

On October 16, 2008, the General Electric Company (GE) submitted a document to the U.S. Environmental Protection Agency (EPA) titled Second Addendum to Final Removal Design/Removal Action Work Plan (Second Addendum) concerning the need for and scope of remediation activities to address polychlorinated biphenyls (PCBs) in soil within portions of the Newell Street Area II Removal Action Area (RAA) under the Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site. As described therein, in the course of preparing the required Grant of Environmental Restriction and Easement (ERE) for GE-owned Parcel J9-23-12 (which has since been executed and recorded), GE determined that the portion of that property commonly referred to as the "wooded area" (i.e., the portion of Parcel J9-23-12 that was not subject to placement of an engineered barrier) included portions of two undeveloped streets, Vermont Street and Ontario Street, which could not be covered by the ERE. Specifically, although the entire width of these streets is included within the RAA boundary, it was determined that the ERE executed by GE could not cover the portions of the southern half of Vermont Street or the eastern half of Ontario Street located within the RAA, since GE does not have ownership rights to those portions of the streets. In this situation, as agreed with EPA, GE revised the evaluation areas in this portion of the RAA to reflect the different ownership of the southern half of undeveloped Vermont Street and the eastern half of undeveloped Ontario Street.

Based on this change, the Second Addendum presented revised PCB evaluations for five resulting averaging areas, shown on Figure 1:

- Parcel J9-23-12 (Wooded Area Revised) (revised to exclude the southern half of Vermont Street and the eastern half of Ontario Street);
- Southern half of Vermont Street adjacent to Parcel J9-23-10;
- Southern half of Vermont Street adjacent to Parcel J9-23-11;

- Southwest corner of Vermont Street and Ontario Street intersection; and
- Eastern half of Ontario Street from Parcel J9-23-12 through the Vermont Street intersection.

The revised Parcel J9-23-12 (Wooded Area) was evaluated under the PCB Performance Standards for a GE-owned recreational area with an ERE. The three averaging areas within the southern half of Vermont Street, which are considered to be owned by the owners of the adjacent residential properties, were evaluated under the PCB Performance Standards for residential properties. The averaging area within the eastern half of Ontario Street (through the Vermont Street intersection), which is considered to be owned by the owner of adjacent Parcel J9-23-13 (located within Newell Street Area I), was evaluated under the PCB Performance Standards for a non-GE-owned recreational area, with the expectation that the Conditional Solution that had previously been implemented at Parcel J9-23-13 would be extended to include that portion of Ontario Street. The results of these revised PCB evaluations indicated that limited additional soil removal (less than three cubic yards) would be necessary within the southwest corner of the intersection of Vermont and Ontario Streets to achieve the applicable PCB Performance Standards, but that no additional soil removal would be necessary in any of the other averaging areas to achieve the applicable PCB Performance Standards.

Subsequent to that submittal, EPA requested that GE evaluate the potential presence of non-PCB constituents listed in Appendix IX of 40 CFR Part 264, plus three additional constituents – benzidine, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine (Appendix IX+3) – within the four new averaging areas comprising the portions of the southern half of Vermont Street and the eastern half of Ontario Street included in Newell Street Area II, to determine the need for additional sampling and/or remediation activities to address such constituents in soil. GE performed the requested evaluation and determined that supplemental investigation and evaluation activities would be appropriate for the three averaging areas comprising the portion of the southern half of Vermont Street within this RAA.

This *Third Addendum to Final Removal Design/Removal Action Work Plan* (Third Addendum) presents summaries of: (1) GE's evaluation of the need for and scope of supplemental non-PCB investigations within the four new averaging areas; (2) the EPA-approved supplemental Appendix IX+3 investigations performed at three of those averaging areas; (3) the EPA-approved Appendix IX+3 evaluation procedures and GE's evaluation of the need for remediation activities to address such constituents at those three averaging areas; and (4) the scope of future remediation activities at this RAA. As described herein, the results of these activities indicate that no additional soil removal (beyond that to address PCBs in soil) is required to achieve the non-PCB Appendix IX+3 Performance Standards in any of these averaging areas.

I. Evaluation of the Need for and Scope of Supplemental Non-PCB Investigations

As summarized in a January 8, 2009 e-mail to EPA, GE performed the requested evaluation of the need for and scope of supplemental Appendix IX+3 soil sampling activities within the four averaging areas comprising the portions of the southern half of Vermont Street and eastern half of Ontario Street located within Newell Street Area II. Based on discussions with EPA and as described in that correspondence, it was determined that insufficient Appendix IX+3 sample data existed within the three residential averaging areas in the southern half of Vermont Street. As a result, GE proposed to conduct supplemental non-PCB soil sampling activities at those three averaging areas, as further described below.

Specifically, as discussed with EPA, GE proposed to perform supplemental sampling at five locations within these three residential averaging areas, including two locations adjacent to Parcel J9-23-10, two locations adjacent to Parcel J9-23-11, and one location in the southwest corner of the Vermont Street and Ontario Street intersection. Since the 0- to 1-foot depth increment at these three averaging areas was almost entirely remediated previously under a 1990 Administrative Consent Order (ACO) executed by GE and the Massachusetts Department of Environmental Protection (MDEP) pursuant to the Massachusetts Contingency Plan (MCP), no sampling was proposed for that depth interval. Instead, GE proposed to collect samples from the 1- to 3-foot and 3- to 6-foot depth increments at each of the five sampling locations. At each sampling location, GE proposed to submit the samples from the 1- to 3-foot depth increment for analysis of Appendix IX+3 constituents (excluding pesticides and herbicides) and to hold the samples from the 3- to 6-foot depth increment for potential future analysis.

For the eastern half of undeveloped Ontario Street located within Newell Street Area II, GE's January 8, 2009 e-mail indicated that, since that area is considered to be owned by the owner of adjacent Parcel J9-23-13 located in Newell Street Area I, GE evaluated whether additional Appendix IX+3 soil sampling activities would have been required for this area if it had originally been included as part of Parcel J9-23-13 in Newell Street Area I. To perform this evaluation, GE first reviewed the PCB and Appendix IX+3 sampling requirements specified in the Statement of Work for Removal Actions Outside the River (SOW) for non-residential properties within the Former Oxbow Areas that are not owned by GE. That review indicated that a minimum of 63 PCB soil samples were required to satisfy the grid-based sampling requirements applicable to Parcel J9-23-13, as specified in the SOW. The Appendix IX+3 sampling requirements in the SOW require the collection of approximately one-third the number of grid-based PCB samples, split approximately evenly between surface (0- to 1-foot) and subsurface (greater than 1 foot) depth increments. Therefore, the Appendix IX+3 sampling requirements would require the collection of approximately 21 Appendix IX+3 soil samples (one-third of 63 samples), split approximately evenly between the surface and subsurface depth increments. A review of the existing soil sampling data set for Parcel J9-23-13 confirmed that at least 63 PCB soil samples had been collected at the grid nodes located on Parcel J9-23-13, and indicated that 23 non-delineation Appendix IX+3 soil samples were previously collected at that property, of which 10 samples were collected from the 0- to 1-foot depth increment.

Next, GE extended the PCB sampling grid used at Parcel J9-23-13 to see if any grid nodes would be located within the eastern half of Ontario Street adjacent to Parcel J9-23-13. GE identified three such PCB sampling grid nodes within or on the border of this portion of Ontario Street. The inclusion of these grid nodes on Parcel J9-23-13 would add seven required PCB soil samples, increasing the total number of required grid-based PCB soil samples for this property to 70. Under this scenario, 23 soil samples (one-third of 70 samples) would be required at this property to satisfy the Appendix IX+3 soil sampling requirements specified in the SOW. As previously indicated, the existing Appendix IX+3 soil sample data set for Parcel J9-23-13 already includes 23 non-delineation soil samples. Therefore, GE concluded in its January 8, 2009 proposal that the inclusion of the eastern half of undeveloped Ontario Street with Parcel J9-23-13 would not have required additional soil sampling activities to satisfy the Appendix IX+3 characterization requirements specified in the SOW for this property. It should also be noted that, based on the existing data, no additional soil removal would be necessary within the eastern half of undeveloped Ontario Street to address non-PCB Appendix IX+3 constituents, since the Performance Standards applicable to these constituents have already been achieved at Parcel J9-23-13, as demonstrated in Section 5.3 of the July 2008 *Final Completion Report for the Newell Street Area I Removal Action*.

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EPA provided conditional approval of the Second Addendum (including GE's January 8, 2009 evaluation and proposal) in a letter to GE dated January 20, 2008. The subsequent supplemental soil sampling and evaluation activities performed by GE are described in the following sections. In addition, it should be noted that, on March 31, 2009, GE sent a letter to the owner of Parcel J9-23-13, informing the owner that the portion of the eastern half of undeveloped Ontario Street within Newell Street Area II is subject to the Conditional Solution previously implemented at Parcel J9-23-13. Also, the ERE for Parcel J9-23-12 was recorded on April 1, 2008.

II. Supplemental Soil Sampling, Analysis, and Data Validation Activities

GE performed the EPA-approved supplemental Appendix IX+3 soil sampling activities at the undeveloped portion of Vermont Street on February 25, 2009. As shown on Figure 1, samples were collected from the 1- to 3-foot and 3- to 6-foot depth increments at five locations, including: (a) two locations within the southern half of Vermont Street adjacent to Parcel J9-23-10 (VT-SB-1 and VT-SB-2); (b) two locations within the southern half of Vermont Street adjacent to Parcel J9-23-11 (VT-SB-3 and VT-SB-4); and (c) one location within the southwest corner of the intersection for undeveloped Vermont and Ontario Streets (VT-SB-5). As previously discussed, the samples from the 1- to 3-foot depth increment were submitted for analysis of Appendix IX+3 constituents, while the samples from the 3- to 6-foot depth increment were held for potential future analysis. (As further discussed in the next section, it was not necessary to release the samples collected from the 3- to 6-foot depth increment for analysis since the evaluation of the data from the 1- to 3-foot samples resulted in the achievement of the Appendix IX+3 Performance Standards at each averaging area.)

Table 1 presents a summary of the supplemental Appendix IX+3 data for the samples collected at sampling locations VT-SB-1 through VT-SB-5. The analytical data for these samples were reviewed in accordance with the data validation protocols included in GE's approved *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP). As discussed in Attachment A, 99.9% of the data results are useable for the non-PCB data evaluations summarized below, which is greater than the minimum required usability of 90% specified in the FSP/QAPP.

III. Summary of Appendix IX+3 Evaluation Procedures and Evaluations of the Need for Remediation Activities

In accordance with GE's January 8, 2009 proposal, the supplemental Appendix IX+3 soil sampling data collected from the three residential averaging areas in the southern half of Vermont Street were evaluated using the same Appendix IX+3 evaluation procedures applicable to residential properties under the CD. In summary, those evaluation procedures involved the following steps for each averaging area:

• First, a screening step was conducted involving comparison of the maximum concentrations of all detected constituents (other than dioxins/furans) to the applicable Preliminary Remediation Goals (PRGs) developed by EPA Region 9 (as set forth in Exhibit F-1 to Attachment F of the SOW) or certain surrogate PRGs previously approved by EPA.

- Second, for dioxins/furans, Toxicity Equivalency Quotient (TEQ) concentrations were calculated using the Toxicity Equivalency Factors (TEFs) published by the World Health Organization (WHO) in 1998 (van den Berg J. *et al.*, Environ. Health Perspectives, Vol. 106, No. 12), and the maximum TEQ concentration at each averaging area was compared to the PRG developed by EPA for dioxin/furan TEQs at residential properties, which is 1E-03 parts per million (ppm).
- Third, for those constituents (other than dioxin/furan TEQs) that were not screened out in Step 1, the existing average concentrations of each such constituent were calculated for the greater than 1 foot depth increment. (As described above, no Appendix IX+3 soil samples were required to be collected from the 0- to 1-foot depth increment.) Those average concentrations were then compared to the applicable MCP Method 1 soil standards for such constituents at residential properties.

GE's January 8, 2009 proposal noted that if the results from the 1- to 3-foot depth samples indicated achievement of the applicable Performance Standards for non-PCB constituents, no further actions would be proposed, but that if those data did not indicate achievement of the standards, the 3- to 6-foot depth sample(s) underlying the sample(s) causing the exceedance(s) would be released for analysis, and the Appendix IX+3 evaluation procedures described above would be repeated. That proposal also indicated that if, after completion of all sampling, analysis, and evaluation activities, exceedances of the above-listed criteria remain, GE would propose additional remediation activities or additional delineation soil sampling activities.

Summaries of the Appendix IX+3 evaluations performed for each of the three residential averaging areas sampled are presented below.

Southern Half of Vermont Street Adjacent to Parcel J9-23-10

Table 2 presents the initial screening step for the southern half of Vermont Street adjacent to Parcel J9-23-10. As indicated therein, the maximum concentration of each detected constituent is less than its corresponding EPA Region 9 PRG or surrogate PRG, with the exception of benzo(a)pyrene and arsenic. As a result, the latter two constituents were retained for further evaluation along with dioxin/furan TEQs. Next, arithmetic average concentrations were calculated for both retained constituents for comparison to their corresponding Method 1 S-1 soil standards, as set forth in the MCP. As indicated in Table 3, the arithmetic average concentrations of both benzo(a)pyrene and arsenic are less than their corresponding Method 1 soil standards. That table also indicates that the maximum dioxin/furan TEQ concentration is less than the EPA PRG of 1.0E-03 ppm. Thus, no remediation is necessary to address non-PCB constituents in soil at the southern half of Vermont Street adjacent to Parcel J9-23-10, and this averaging area meets the non-PCB Appendix IX+3 residential soil standards under current conditions.

Southern Half of Vermont Street Adjacent to Parcel J9-23-11

Table 4 presents the initial screening step for the southern half of Vermont Street adjacent to Parcel J9-23-11. As indicated therein, the maximum concentration of each detected constituent is less than its corresponding EPA Region 9 PRG or surrogate PRG, with the exception of benzo(a)pyrene and arsenic. As a result, the latter two constituents were retained for further evaluation along with dioxin/furan TEQs. Next, arithmetic average concentrations were calculated for both retained constituents for comparison to

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their corresponding Method 1 S-1 soil standards, as set forth in the MCP. As indicated in Table 5, the arithmetic average concentrations of both benzo(a)pyrene and arsenic are less than their corresponding Method 1 soil standards. That table also indicates that the maximum dioxin/furan TEQ concentration is less than the EPA PRG of 1.0E-03 ppm. Thus, no remediation is necessary to address non-PCB constituents in soil at the southern half of Vermont Street adjacent to Parcel J9-23-11, and this averaging area meets the non-PCB Appendix IX+3 residential soil standards under current conditions.

Southwest Corner of the Intersection of Vermont and Ontario Streets

Table 6 presents the initial screening step for the southwest corner of the intersection of Vermont and Ontario Streets. As indicated therein, the maximum concentration of each detected constituent is less than its corresponding EPA Region 9 PRG or surrogate PRG, with the exception of arsenic. As a result, arsenic was retained for further evaluation along with dioxin/furan TEQs. Next, the arithmetic average concentration of arsenic was calculated for comparison to its corresponding Method 1 S-1 soil standard, as set forth in the MCP. As indicated in Table 7, the arithmetic average concentration of arsenic is less than its corresponding Method 1 soil standard. That table also indicates that the maximum dioxin/furan TEQ concentration is less than the EPA PRG of 1.0E-03 ppm. Thus, no remediation is necessary to address non-PCB constituents in soil at the southwest corner of the intersection of Vermont and Ontario Streets, and this averaging area meets the non-PCB Appendix 1X+3 residential soil standards under current conditions.

IV. Future Remediation Activities

As previously indicated, the results of the evaluations described herein indicate that no soil removal is necessary to achieve the residential non-PCB Appendix IX+3 Performance Standards in the four new averaging areas within the southern half of Vermont Street or the eastern half of Ontario Street. However, the evaluations of the need for and scope of remediation activities to address PCBs in soil within these same averaging areas, as presented in Second Addendum, indicated that less than three cubic yards of soil removal is necessary within the 0- to 1-foot depth increment of one of these averaging areas – the southwest corner of the intersection of Vermont and Ontario Streets. Further, in response to Comment #2 of EPA's January 20, 2009 conditional approval letter, GE will perform limited additional soil removal (less than one cubic yard of soil) to address certain soil associated with sampling location NS-163-C12 and located in the top foot of soil within the southern half of Vermont Street adjacent to Parcel J9-23-11. Together, the remediation activities within these two areas will result in less than five cubic yards of soil removal from these averaging areas.

Upon receipt of EPA approval of this Third Addendum, GE will implement the removal activities described herein. These activities will include the following:

• Pre-implementation activities, including: acquisition of necessary approvals (i.e., receipt of owner access permission); selection of a remediation contractor; and receipt and review of various contractor submittals.

- Site preparation activities, including: contractor mobilization; utility location and clearances; installation of erosion controls; provisions for site security; clearing and removal of obstructions/vegetation; and preparation of "clean" access areas.
- Excavation and material handling activities, generally consistent with those specified in the *Final Removal Design/Removal Action Work Plan for Newell Street Area II* (Final Work Plan, March 2005). Since the soil to be excavated does not contain PCBs at or above 50 ppm, its disposition is not subject to regulation under the Toxic Substances Control Act (TSCA). In addition, based on (a) the results of a composite soil sample collected prior to the remediation previously performed under the ACO at Parcels J9-23-9, J9-23-10, and J9-23-11 and analyzed for lead by the Toxicity Characteristic Leaching Procedure, and (b) a review of the relevant non-PCB Appendix IX+3 soil sample data from the recent sampling activities, the excavated soil will not constitute hazardous waste subject to regulation under the Resource Conservation and Recovery Act (RCRA). In these circumstances, the excavated material will be excavated and either transported for consolidation at the Hill 78 On-Plant Consolidation Area (OPCA) or transported off-site for disposal at the Waste Management, Inc. High Acres disposal facility in Fairport, New York.
- Backfilling and site restoration activities. GE anticipates using similar backfill and topsoil sources utilized for other projects performed under the CD. The data for the backfill and topsoil sources proposed for use will be provided to EPA prior to performance of the removal actions, unless the source(s) have already been approved within the last year by EPA for use at other CD sites. Following installation of the backfill and topsoil, the affected area will be reseeded with grass.
- Monitoring of the restored vegetation two times per year (in May and August or September) for a period of two years following the completion of the remediation activities, and submittal of reports on those inspection activities to EPA.

In support of the performance of the proposed remediation, GE has developed Technical Drawings which are included in Attachment B. These drawings provide additional implementation-related details associated with the performance of the remediation activities proposed herein.

Upon completion of the proposed remediation activities, GE will revise the draft Final Completion Report for the Newell Street Area II Removal Action to incorporate a summary of the investigation, evaluation, and remediation activities described herein, and will submit that revised document to EPA for review.

Please contact me if you have questions or comments concerning the activities described above.

Sincerely,

Richard W. Catery cat

Richard W. Gates Remediation Project Manager

Attachments

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cc: Richard Fisher, EPA Tim Conway, EPA* John Kilborn, EPA Holly Inglis, EPA Rose Howell, EPA* K.C. Mitkevicius, USACE Linda Palmieri, Weston Michael Gorski, MDEP* Eva Tor, MDEP* Jane Rothchild, MDEP* Susan Steenstrup, MDEP (2 copies) Mayor James Ruberto, City of Pittsfield Nancy E. Harper, MA AG* Dale Young, MA EOEEA* Michael Carroll, GE* Rod McLaren, GE James Nuss, ARCADIS James Bieke, Goodwin Procter Property Owner – Parcel J9-23-10 Property Owner – Parcel J9-23-11 Property Owner – Parcel J9-23-13 Public Information Repositories GE Internal Repositories

(* without attachments)

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Tables

Sample ID:	VT-SB-1	VT-SB-2	VT-SB-3	VT-SB-4	VT-SB-5
Sample Depth(Feet):	1-3	1-3	1-3	1-3	1-3
Parameter Date Collected:	02/25/09	02/25/09	02/25/09	02/25/09	02/25/09
Volatile Organics					
1,1,1,2-Tetrachloroethane	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
1,1,1-Trichloroethane	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
1,1,2,2-Tetrachloroethane	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
1,1,2-Trichloroethane	ND(0.0050)	ND(0.0054)	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
1,1-Dichloroethane	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
1,1-Dichloroethene	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
1,2,3- I richloropropane	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
1,2-Dibromo-3-chioropropane	ND(0.025) J	ND(0.027) J	ND(0.029) J	ND(0.028) J	ND(0.024) J [ND(0.024) J]
1,2-Diblomoethane	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
1,2-Dichloropropage	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
	ND(5.0030)	ND(5.4) J	ND(0.0039)	ND(0.0033)	ND(0.0047) [ND(0.0047)]
2-Butanone	ND(0.012).1	ND(0.013).1	ND(0.015).1	ND(0.014).1	$ND(0.012) \downarrow [ND(0.012) \downarrow]$
2-Chloro-1 3-butadiene	ND(0.0050)	ND(0.0054)	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
2-Chloroethylvinylether	ND(0.025) J	R	ND(0.029) J	ND(0.028) J	ND(0.024) J [ND(0.024) J]
2-Hexanone	ND(0.012)	ND(0.013)	ND(0.015)	ND(0.014)	ND(0.012) [ND(0.012)]
3-Chloropropene	ND(0.0050)	ND(0.0054)	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
4-Methyl-2-pentanone	ND(0.012)	ND(0.013)	ND(0.015)	ND(0.014)	ND(0.012) [ND(0.012)]
Acetone	0.042 J	0.012 J	0.037 J	0.014 J	ND(0.012) J [0.0093 J]
Acetonitrile	ND(0.99) J	ND(1.1) J	ND(1.2) J	ND(1.1) J	ND(0.94) J [ND(0.94) J]
Acrolein	ND(0.061) J	ND(0.066) J	ND(0.072) J	ND(0.068) J	ND(0.058) J [ND(0.058) J]
Acrylonitrile	ND(0.050) J	ND(0.054) J	ND(0.059) J	ND(0.055) J	ND(0.047) J [ND(0.047) J]
Benzene	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Bromodichloromethane	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Bromoform	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Bromomethane	ND(0.0050)	ND(0.0054)	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Carbon Disulfide	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Carbon Tetrachloride	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Chloropenzene	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Chloroform	ND(0.0050)	ND(0.0054)	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Chloromethane	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
cis-1 3-Dichloropropene	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Dibromochloromethane	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Dibromomethane	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Dichlorodifluoromethane	ND(0.0050) J	ND(0.0054) J	ND(0.0059) J	ND(0.0055) J	ND(0.0047) J [ND(0.0047) J]
Ethyl Methacrylate	ND(0.0050)	ND(0.0054)	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Ethylbenzene	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
lodomethane	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Isobutanol	ND(2.5) J	ND(2.7) J	ND(2.9) J	ND(2.8) J	ND(2.4) J [ND(2.4) J]
Methacrylonitrile	ND(0.50) J	ND(0.54) J	ND(0.59) J	ND(0.55) J	ND(0.47) J [ND(0.47) J]
Methyl Methacrylate	ND(0.0050)	ND(0.0054)	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Methylene Chloride	ND(0.0050)	ND(0.0054) J	0.0017 J	ND(0.0055)	ND(0.0047) [0.0022 J]
Propionitrile	ND(0.99) J	ND(1.1) J	ND(1.2) J	ND(1.1) J	ND(0.94) J [ND(0.94) J]
Styrene	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Teluene	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
trans_1_2-Dichloroethene	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
trans-1.3-Dichloropropene	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
trans-1 4-Dichloro-2-butene	ND(0.011)	ND(0.012) J	ND(0.013)	ND(0.012)	ND(0.010) [ND(0.010)]
Trichloroethene	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Trichlorofluoromethane	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Vinyl Acetate	ND(0.0099)	ND(0.011)	ND(0.012)	ND(0.011)	ND(0.0094) [ND(0.0094)]
Vinyl Chloride	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Xylenes (total)	ND(0.0050)	ND(0.0054) J	ND(0.0059)	ND(0.0055)	ND(0.0047) [ND(0.0047)]
Semivolatile Organics					
1,2,4,5-Tetrachlorobenzene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
1,2,4-Trichlorobenzene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
1,2-Dichlorobenzene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
1,2-Diphenylhydrazine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
1,3,5-Trinitrobenzene	ND(1.7) J	ND(1.7) J	ND(1.9) J	ND(1.7) J	ND(1.7) J [ND(1.6) J]
1,3-Dichlorobenzene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
1,4-DICNIORODENZENE	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]

Sample ID:	VT-SB-1	VT-SB-2	VT-SB-3	VT-SB-4	VT-SB-5
Sample Depth(Feet):	1-3	1-3	1-3	1-3	1-3
Parameter Date Collected:	02/25/09	02/25/09	02/25/09	02/25/09	02/25/09
Semivolatile Organics (continued)					
1,4-Naphthoquinone	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2.3.4.6 Totrachlorophonol	ND(1.7)	ND(1.7)	ND(1.9)	ND(1.7)	ND(1.7) [ND(1.0)]
2.4.5-Trichlorophenol	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2.4.6-Trichlorophenol	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2,4-Dichlorophenol	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2,4-Dimethylphenol	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2,4-Dinitrophenol	ND(1.7) J	ND(1.7) J	ND(1.9) J	ND(1.7) J	ND(1.7) J [ND(1.6) J]
2,4-Dinitrotoluene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2,6-Dichlorophenol	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2,6-Dinitrotoluene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2-Acelylaminoliuorene	ND(0.66)	ND(0.66)	ND(0.74)	ND(0.08)	ND(0.68) [ND(0.65)]
2-Chlorophenol	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2-Methylnaphthalene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2-Methylphenol	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2-Naphthylamine	ND(1.7)	ND(1.7)	ND(1.9)	ND(1.7)	ND(1.7) [ND(1.6)]
2-Nitroaniline	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2-Nitrophenol	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
2-Picoline	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
3&4-Metnylphenol	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
3 3'-Dimethylbenzidine	ND(0.00)	ND(0.08)	ND(0.74)	ND(0.00)	ND(1.7) . [ND(1.6) .]]
3-Methylcholanthrene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
3-Nitroaniline	ND(1.7)	ND(1.7)	ND(1.9)	ND(1.7)	ND(1.7) [ND(1.6)]
4,6-Dinitro-2-methylphenol	ND(1.7) J	ND(1.7) J	ND(1.9) J	ND(1.7) J	ND(1.7) J [ND(1.6) J]
4-Aminobiphenyl	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
4-Bromophenyl-phenylether	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
4-Chloro-3-Methylphenol	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
4-Chlorobonzilato	ND(1.7)	ND(1.7)	ND(1.9)	ND(1.7)	ND(1.7) [ND(1.6)]
4-Chlorophenyl-phenylether	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
4-Nitroaniline	ND(1.7)	ND(1.7)	ND(1.9)	ND(1.7)	ND(1.7) [ND(1.6)]
4-Nitrophenol	ND(1.7)	ND(1.7)	ND(1.9)	ND(1.7)	ND(1.7) [ND(1.6)]
4-Nitroquinoline-1-oxide	ND(1.7) J	ND(1.7) J	ND(1.9) J	ND(1.7) J	ND(1.7) J [ND(1.6) J]
4-Phenylenediamine	ND(0.68)	ND(0.68)	ND(0.74)	ND(0.68)	ND(0.68) [ND(0.65)]
5-Nitro-o-toluidine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
7,12-Dimethylbenz(a)anthracene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
	ND(1.7)	ND(1.7)	ND(1.3)	ND(1.7)	ND(0.34) [ND(0.33)]
Acenaphthylene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Acetophenone	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Aniline	0.19 J	0.16 J	ND(0.37)	0.15 J	ND(0.34) [ND(0.33)]
Anthracene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Aramite	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Benzidine	ND(0.68)	ND(0.68)	ND(0.74)	ND(0.68)	ND(0.68) [ND(0.65)]
Benzo(a)pyrene	0.13 J	0.12.3	ND(0.37)	0.078 J	ND(0.34) [ND(0.33)]
Benzo(b)fluoranthene	0.13 J	0.16 J	ND(0.37)	0.10 J	ND(0.34) [ND(0.33)]
Benzo(g,h,i)perylene	0.11 J	0.11 J	ND(0.37)	0.071 J	ND(0.34) [ND(0.33)]
Benzo(k)fluoranthene	0.085 J	0.072 J	ND(0.37)	0.054 J	ND(0.34) [ND(0.33)]
Benzyl Alcohol	ND(0.68)	ND(0.68)	ND(0.74)	ND(0.68)	ND(0.68) [ND(0.65)]
bis(2-Chloroethoxy)methane	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
bis(2-Chloroethyl)ether	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
bis(2-Chioroisopropyi)ether	0.058 1	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)] ND(0.34) [ND(0.33)]
Butylbenzylphthalate	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Chrysene	0.15 J	0.16 J	ND(0.37)	0.098 J	ND(0.34) [ND(0.33)]
Diallate	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Dibenzo(a,h)anthracene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Dibenzofuran	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Diethylphthalate	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Dimethylphthalate	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
DI-II-BUTYIPITINAIATE	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]

Sample ID:	VT-SB-1	VT-SB-2	VT-SB-3	VT-SB-4	VT-SB-5
Sample Depth(Feet):	1-3	1-3	1-3	1-3	1-3
Parameter Date Collected:	02/25/09	02/25/09	02/25/09	02/25/09	02/25/09
Semivolatile Organics (continued)					
Di-n-Octylphthalate	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Diphenylamine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Ethyl Methanesulfonate	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Fluoranthene	0.27 J	0.24 J	ND(0.37)	0.15 J	ND(0.34) [ND(0.33)]
Fluorene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Hexachlorobenzene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Hexachlorobutadiene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Hexachlorocyclopentadiene	ND(0.68)	ND(0.68)	ND(0.74)	ND(0.68)	ND(0.68) [ND(0.65)]
Hexachloroethane	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Hexachlorophene	ND(0.34) J	ND(0.34) J	ND(0.37) J	ND(0.34) J	ND(0.34) J [ND(0.33) J]
Hexachloropropene	ND(0.68)	ND(0.68)	ND(0.74)	ND(0.68)	ND(0.68) [ND(0.65)]
Indeno(1,2,3-cd)pyrene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Isodrin	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Isophorone	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Isosafrole	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Methapyrilene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Methyl Methanesulfonate	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Naphthalene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Nitrobenzene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
N-Nitrosodiethylamine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
N-Nitrosodimethylamine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
N-Nitroso-di-n-butylamine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
N-Nitroso-di-n-propylamine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
N-Nitrosomethylethylamine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
N-Nitrosomorpholine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
N-Nitrosopiperidine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
N-Nitrosopyrrolidine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
o,o,o-Triethylphosphorothioate	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
o-Toluidine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
p-Dimethylaminoazobenzene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Pentachlorobenzene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Pentachloroethane	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Pentachloronitrobenzene	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Pentachlorophenol	ND(1.7)	ND(1.7)	ND(1.9)	ND(1.7)	ND(1.7) [ND(1.6)]
Phenacetin	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Phenanthrene	0.092 J	0.096 J	ND(0.37)	0.058 J	ND(0.34) [ND(0.33)]
Phenol	0.051 J	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Pronamide	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Pyrene	0.24 J	0.22 J	ND(0.37)	0.15 J	ND(0.34) [ND(0.33)]
Pyridine	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Safrole	ND(0.34)	ND(0.34)	ND(0.37)	ND(0.34)	ND(0.34) [ND(0.33)]
Thionazin	ND(0.68)	ND(0.68)	ND(0.74)	ND(0.68)	ND(0.68) [ND(0.65)]
Furans			-		
2,3,7,8-TCDF	0.000018 Y	0.000022 Y	0.0000025 Y	0.000014 Y	0.00000063 J [ND(0.00000092)]
TCDFs (total)	0.00022 J	0.00027 J	0.000016	0.00012	0.0000015 [0.0000082]
1,2,3,7,8-PeCDF	0.0000097	0.000011	0.00000077 J	0.0000051 J	ND(0.00000053) [ND(0.00000049)]
2,3,4,7,8-PeCDF	0.000025	0.000037	0.0000018 J	0.0000092	0.00000088 J [0.00000060 J]
PeCDFs (total)	0.00033 J	0.00050 J	0.000025 J	0.00013 J	0.000017 [0.000012]
1,2,3,4,7,8-HxCDF	0.000020 J	0.000024 J	ND(0.00000066) J	0.0000080	ND(0.0000084) [ND(0.0000094)]
1,2,3,6,7,8-HxCDF	0.000013	0.000018	0.00000072 J	0.0000049 J	ND(0.00000078) [ND(0.00000087)]
1,2,3,7,8,9-HxCDF	ND(0.0000057)	0.0000041 J	ND(0.0000074)	ND(0.0000021)	ND(0.0000096) [ND(0.000011)]
2,3,4,6,7,8-HxCDF	0.000020	0.000034	0.0000093 J	0.0000072	ND(0.0000083) X [0.0000082 J]
HxCDFs (total)	0.00033 J	0.00059 J	0.000016	0.00013	0.000018 [0.000018]
1,2,3,4,6,7,8-HpCDF	0.000036	0.000046	0.0000026 J	0.000015	0.0000012 J [0.0000010 J]
1,2,3,4,7,8,9-HpCDF	0.000063	0.0000070	ND(0.0000094)	0.0000019 J	ND(0.0000016) [ND(0.0000015)]
HpCDFs (total)	0.00010	0.00015	0.0000061	0.000041	0.0000053 [0.0000048]
OCDF	0.000030	0.000030	0.0000025 J	0.000016	ND(0.0000036) [ND(0.0000031)]

THIRD ADDENDUM TO FINAL REMOVAL DESIGN/REMOVAL ACTION WORK PLAN FOR NEWELL STREET AREA II **GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS** (Results are presented in dry weight parts per million, ppm)

Sample ID:	VT-SB-1	VT-SB-2	VT-SB-3	VT-SB-4	VT-SB-5
Sample Depth(Feet):	1-3	1-3	1-3	1-3	1-3
Parameter Date Collected:	02/25/09	02/25/09	02/25/09	02/25/09	02/25/09
Dioxins					
2,3,7,8-TCDD	ND(0.0000031) J	ND(0.0000023) J	ND(0.0000035)	ND(0.0000067)	ND(0.00000058) [ND(0.00000064)]
TCDDs (total)	0.0000023 J	0.0000034	ND(0.0000035)	ND(0.0000067)	ND(0.00000058) [ND(0.00000064)]
1,2,3,7,8-PeCDD	ND(0.0000053) J	ND(0.00000055) X	ND(0.0000060)	ND(0.0000085)	ND(0.0000080) [ND(0.0000079)]
PeCDDs (total)	0.000012	0.000011 J	ND(0.0000060)	0.0000014	ND(0.0000080) [ND(0.0000079)]
1,2,3,4,7,8-HxCDD	0.00000082 J	0.00000086 J	ND(0.0000081)	ND(0.0000012)	ND(0.0000012) [ND(0.0000013)]
1,2,3,6,7,8-HxCDD	0.0000021 J	0.0000024 J	ND(0.00000077)	ND(0.0000011)	ND(0.0000012) [ND(0.0000013)]
1,2,3,7,8,9-HxCDD	0.0000021 J	0.0000017 J	ND(0.00000079)	ND(0.0000011)	ND(0.0000012) [ND(0.0000013)]
HxCDDs (total)	0.000023	0.000025	ND(0.0000081)	0.0000043	ND(0.0000012) [ND(0.0000013)]
1,2,3,4,6,7,8-HpCDD	0.000014	0.000015	0.00000096 J	0.0000059	ND(0.000020) [ND(0.000020)]
HpCDDs (total)	0.000030	0.000036	0.0000018	0.000012	ND(0.000020) [ND(0.000020)]
OCDD	0.000083	0.000066	0.0000055 J	0.000032	ND(0.0000049) [ND(0.0000037)]
Total TEQs (WHO TEFs)	0.000022	0.000031	0.0000021	0.0000095	0.0000016 [0.0000015]
Inorganics					
Antimony	ND(4.15) J	ND(4.09) J	ND(4.77) J	ND(3.87) J	ND(3.74) J [ND(3.54) J]
Arsenic	3.81	3.33	3.97	2.16	2.42 [2.23]
Barium	49.8 B	30.1 B	32.8 B	12.1 B	11.5 B [9.11 B]
Beryllium	ND(1.04) J	ND(1.02) J	ND(1.19) J	ND(0.967) J	ND(0.935) J [ND(0.886) J]
Cadmium	ND(0.518) J	ND(0.511) J	ND(0.596) J	ND(0.484) J	ND(0.468) J [ND(0.443) J]
Chromium	9.73	9.13	12.8	7.44	7.89 [6.92]
Cobalt	5.59	8.83	11.3	3.52	5.11 [5.02]
Copper	18.5 J	21.2 J	21.4 J	8.21 J	7.74 J [8.95 J]
Lead	69.0	46.3	12.2	15.9	5.98 [5.76]
Mercury	0.0274 B	0.0523	0.0189 B	0.0899	0.0108 B [0.0111 B]
Nickel	11.2	17.6	19.9	8.79	12.2 [12.9]
Selenium	4.24	3.89	5.20	2.81	3.12 [3.44]
Silver	ND(1.04)	ND(1.02)	ND(1.19)	ND(0.967)	ND(0.935) [ND(0.886)]
Thallium	1.02 B	ND(1.02)	ND(1.19)	ND(0.967)	ND(0.935) [ND(0.886)]
Tin	2.54 B	0.826 B	ND(11.9)	0.396 B	ND(9.35) [ND(8.86)]
Vanadium	9.30	8.79	13.4	7.10	7.04 [7.11]
Zinc	199	183	64.6	45.7	38.5 [38.4]
Cyanide	ND(0.960)	ND(0.850)	ND(0.920)	ND(0.860)	ND(0.750) [ND(0.850)]
Sulfide	ND(2.30)	ND(2.10) J	ND(2.40)	ND(2.10)	ND(2.10) [ND(2.00)]

Notes:

1. Samples were collected by ARCADIS and submitted to SGS Environmental Services, Inc. for analysis of Appendix IX + 3 constituents.

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

Data Qualifiers:

<u>Organics (volatiles, semivolatiles,dioxin/furans)</u> J - Indicates an estimated value less than the practical quantitation limit (PQL). R - Data was rejected due to a deficiency in the data generation process.

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

TABLE 2 COMPARISON OF DETECTED APPENDIX IX+3 CONSTITUENTS TO RESIDENTIAL SCREENING PRGS SOUTHERN HALF OF VERMONT STREET ADJACENT TO PARCEL J9-23-10

THIRD ADDENDUM TO FINAL REMOVAL DESIGN/REMOVAL ACTION WORK PLAN FOR NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS (Results in ppm, dry weight)

Analytical Parameter	Maximum Detect	USEPA Region 9 Residential PRGs (See Note 3)	Constituent Retained for Further Evaluation? (See Note 5)
Volatile Organics			
Acetone	0.042	1,400	No
Semivolatile Organics			
Aniline	0.19	78	No
Benzo(a)anthracene	0.13	0.56	No
Benzo(a)pyrene	0.14	0.056	Yes
Benzo(b)fluoranthene	0.16	0.56	No
Benzo(g,h,i)perylene	0.11	55*	No
Benzo(k)fluoranthene	0.085	5.6	No
bis(2-Ethylhexyl)phthalate	0.058	32	No
Chrysene	0.16	56	No
Fluoranthene	0.27	2,000	No
Phenanthrene	0.096	55*	No
Phenol	0.051	33,000	No
Pyrene	0.24	1,500	No
Inorganics			
Arsenic	3.81	0.38	Yes
Barium	49.8	5,200	No
Chromium	9.73	210	No
Cobalt	8.83	3,300	No
Copper	21.2	2,800	No
Lead	69	400	No
Mercury	0.0523	22	No
Nickel	17.6	1,500	No
Selenium	4.24	370	No
Thallium	1.02	6	No
Tin	2.54	45,000	No
Vanadium	9.3	520	No
Zinc	199	22,000	No

Notes:

1. PRG = Preliminary Remediation Goal.

2. Per Attachment F to Statement of Work for Removal Actions Outside the River (SOW), comparison to PRGs is required for all detected Appendix IX+3 constituents except PCBs, dioxins and furans.

3. The PRGs listed in this column consist of EPA Region 9 residential soil PRGs for the constituents listed or, for certain constituent surrogate Region 9 PRGs previously approved by EPA as identified in this Third Addendum. The PRGs listed are those set forth in Exhibit F-1 to Attachment F to the SOW.

4. * = No EPA Region 9 PRG exists for certain noncarcinogenic PAHs (i.e., benzo(g,h,i)perylene and phenanthrene). The PRG for naphthalene was used as a surrogate.

5. Constituent is retained for further evaluation if its maximum detected concentration exceeds its corresponding PRG.

TABLE 3 EXISTING CONDITIONS - COMPARISON TO METHOD 1 SOIL STANDARDS SOUTHERN HALF OF VERMONT STREET ADJACENT TO PARCEL J9-23-10

THIRD ADDENDUM TO FINAL REMOVAL DESIGN/REMOVAL ACTION WORK PLAN FOR NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS (Results in ppm, dry weight)

Sample Parameter [Sample ID: e Depth (Feet): Date Collected:	VT-SB-1 1-3 02/25/09	VT-SB-2 1-3 02/25/09	Maximum Sample Result	Arithmetic Average Concentration	MCP Method 1 S-1 GW-2/GW-3 Soil Standard (See Note 3)	Constituent Exceeds Initial Comparison Criteria? (See Note 4)
Semivolatile Org	janics						
Benzo(a)pyrene		0.14	0.13	N/A (See Note 4)	0.14	2	No
Dioxins/Furans							
Total TEQs (WHC	O TEFs)	2.20E-05	3.10E-05	3.10E-05	N/A (See Note 4)	1.00E-03	No
Inorganics							
Arsenic		3.81	3.33	N/A (See Note 4)	3.57	20	No

Notes:

1. Total 2,3,7,8-TCDD toxicity equivalency quotients (TEQs) were calculated using World Health Organization (WHO) Toxicity Equivalency Factors (TEFs) for all PCDD/PCDF compounds. Where individual compounds were not detected, a value of one-half the analytical detection limit was used to calculate the TEQ concentrations.

2. Benzo(a)pyrene and arsenic have a maximum sample result that exceeds their respective EPA Region 9 Residential PRGs.

3. The Method 1 S-1 soil standards (MCP; revised December 14, 2007) listed are those associated with GW-2 or GW-3 groundwater (whichever is more stringent), except for Dioxin/Furan Total TEQs. The value listed is the EPA Residential PRG for such TEQs, as set forth in Attachment F of the *Statement of Work for Removal Actions Outside the River* (SOW).

4. Arithmetic average concentrations of benzo(a)pyrene and arsenic are compared to Method 1 Soil Standards. For Total TEQs, the maximum concentration is compared to the EPA Residential PRG.

TABLE 4 COMPARISON OF DETECTED APPENDIX IX+3 CONSTITUENTS TO RESIDENTIAL SCREENING PRGS SOUTHERN HALF OF VERMONT STREET ADJACENT TO PARCEL J9-23-11

THIRD ADDENDUM TO FINAL REMOVAL DESIGN/REMOVAL ACTION WORK PLAN FOR NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS (Results in ppm, dry weight)

		USEPA	Constituent Retained
Analytical Daramatar	Maximum	Region 9 Residential PRGs	for Further Evaluation?
Analytical Parameter	Detect	(See Note 3)	(See Note 5)
	0.007	1 400	Na
Acetone	0.037	1,400	INO
Methylene Chloride	0.0017	8.5	NO
Semivolatile Organics			
Aniline	0.15	78	No
Benzo(a)anthracene	0.078	0.56	No
Benzo(a)pyrene	0.098	0.056	Yes
Benzo(b)fluoranthene	0.1	0.56	No
Benzo(g,h,i)perylene	0.071	55*	No
Benzo(k)fluoranthene	0.054	5.6	No
Chrysene	0.098	56	No
Fluoranthene	0.15	2,000	No
Phenanthrene	0.058	55*	No
Pyrene	0.15	1,500	No
Inorganics			
Arsenic	3.97	0.38	Yes
Barium	32.8	5,200	No
Chromium	12.8	210	No
Cobalt	11.3	3,300	No
Copper	21.4	2,800	No
Lead	15.9	400	No
Mercury	0.0899	22	No
Nickel	19.9	1,500	No
Selenium	5.2	370	No
Tin	0.396	45,000	No
Vanadium	13.4	520	No
Zinc	64.6	22,000	No

Notes:

1. PRG = Preliminary Remediation Goal.

2. Per Attachment F to Statement of Work for Removal Actions Outside the River (SOW), comparison to PRGs is required for all detected Appendix IX+3 constituents except PCBs, dioxins and furans.

3. The PRGs listed in this column consist of EPA Region 9 residential soil PRGs for the constituents listed or, for certain constituent surrogate Region 9 PRGs previously approved by EPA as identified in this Third Addendum. The PRGs listed are those set forth in Exhibit F-1 to Attachment F to the SOW.

4. * = No EPA Region 9 PRG exists for certain noncarcinogenic PAHs (i.e., benzo(g,h,i)perylene and phenanthrene). The PRG for naphthalene was used as a surrogate.

5. Constituent is retained for further evaluation if its maximum detected concentration exceeds its corresponding PRG.

TABLE 5 EXISTING CONDITIONS - COMPARISON TO METHOD 1 SOIL STANDARDS SOUTHERN HALF OF VERMONT STREET ADJACENT TO PARCEL J9-23-11

THIRD ADDENDUM TO FINAL REMOVAL DESIGN/REMOVAL ACTION WORK PLAN FOR NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS (Results in ppm, dry weight)

Sample Parameter Da	Sample ID: Depth (Feet): ate Collected:	VT-SB-3 1-3 02/25/09	VT-SB-4 1-3 02/25/09	Maximum Sample Result	Arithmetic Average Concentration (See Note 3)	MCP Method 1 S-1 GW-2/GW-3 Soil Standard (See Note 4)	Constituent Exceeds Initial Comparison Criteria? (See Note 5)
Semivolatile Orga	nics						
Benzo(a)pyrene		0.19	0.098	N/A (See Note 5)	0.14	2	No
Dioxins/Furans							
Total TEQs (WHO	TEFs)	2.10E-06	9.50E-06	9.50E-06	N/A (See Note 5)	1.00E-03	No
Inorganics							
Arsenic		3.97	2.16	N/A (See Note 5)	3.07	20	No

Notes:

1. Total 2,3,7,8-TCDD toxicity equivalency quotients (TEQs) were calculated using World Health Organization (WHO) Toxicity Equivalency Factors (TEFs) for all PCDD/PCDF compounds. Where individual compounds were not detected, a value of one-half the analytical detection limit was used to calculate the TEQ concentrations.

2. Benzo(a)pyrene and arsenic have a maximum sample result that exceeds their respective EPA Region 9 Residential PRGs.

3. Non-detect sample results included as one-half the detection limit in the calculation of arithmetic average concentrations and presented in bold.

4. The Method 1 S-1 soil standards (MCP; revised December 14, 2007) listed are those associated with GW-2 or GW-3 groundwater (whichever is more stringent), except for Dioxin/Furan Total TEQs. The value listed is the EPA Residential PRG for such TEQs, as set forth in Attachment F of the *Statement of Work for Removal Actions Outside the River* (SOW).

5. Arithmetic average concentrations of benzo(a)pyrene and arsenic are compared to Method 1 Soil Standards. For Total TEQs, the maximum concentration is compared to the EPA Residential PRG.

TABLE 6 COMPARISON OF DETECTED APPENDIX IX+3 CONSTITUENTS TO RESIDENTIAL SCREENING PRGS SOUTHWEST CORNER OF VERMONT STREET AND ONTARIO STREET INTERSECTION

THIRD ADDENDUM TO FINAL REMOVAL DESIGN/REMOVAL ACTION WORK PLAN FOR NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS (Results in ppm, dry weight)

	Maximum	USEPA Region 9 Residential PRGs	Constituent Retained for Further Evaluation?
Analytical Parameter	Detect	(See Note 3)	(See Note 4)
Volatile Organics			
Acetone	0.0093	1,400	No
Methylene Chloride	0.0022	8.5	No
Semivolatile Organics			
None detected			
Inorganics			
Arsenic	2.42	0.38	Yes
Barium	11.5	5,200	No
Chromium	7.89	210	No
Cobalt	5.11	3,300	No
Copper	8.95	2,800	No
Lead	5.98	400	No
Mercury	0.0111	22	No
Nickel	12.9	1,500	No
Selenium	3.44	370	No
Vanadium	7.11	520	No
Zinc	38.5	22,000	No

Notes:

1. PRG = Preliminary Remediation Goal.

2. Per Attachment F to Statement of Work for Removal Actions Outside the River (SOW), comparison to PRGs is required for all detected Appendix IX+3 constituents except PCBs, dioxins and furans.

3. The PRGs listed in this column consist of EPA Region 9 residential soil PRGs for the constituents listed (as set forth in Exhibit F-1 to Attachment F to the SOW).

4. Constituent is retained for further evaluation if its maximum detected concentration exceeds its corresponding PRG.

TABLE 7 EXISTING CONDITIONS - COMPARISON TO METHOD 1 SOIL STANDARDS SOUTHWEST CORNER OF VERMONT STREET AND ONTARIO STREET INTERSECTION

THIRD ADDENDUM TO FINAL REMOVAL DESIGN/REMOVAL ACTION WORK PLAN FOR NEWELL STREET AREA II GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS (Results in ppm, dry weight)

San Parameter	Sample ID:VT-SB-5MaximumSample Depth (Feet):1-3SampleameterDate Collected:02/25/09Result		Arithmetic Average Concentration	MCP Method 1 S-1 GW-2/GW-3 Soil Standard (See Note 3)	Constituent Exceeds Initial Comparison Criteria? (See Note 4)	
Dioxins/Furar	ns					
Total TEQs (W	/HO TEFs)	1.60E-06	1.60E-06	N/A (See Note 4)	1.00E-03	No
Inorganics						
Arsenic		2.33	N/A (See Note 4)	2.33	20	No

Notes:

1. Total 2,3,7,8-TCDD toxicity equivalency quotients (TEQs) were calculated using World Health Organization (WHO) Toxicity Equivalency Factors (TEFs) for all PCDD/PCD compounds. Where individual compounds were not detected, a value of one-half the analytical detection limit was used to calculate the TEQ concentrations.

2. Arsenic has a maximum sample result that exceeds its EPA Region 9 Residential PRG.

3. The Method 1 S-1 soil standard (MCP; revised December 14, 2007) listed for arsenic is that associated with GW-2 or GW-3 groundwater (whichever is more stringent). The value listed is the EPA Residential PRG for such TEQs, as set forth in Attachment F of the *Statement of Work for Removal Actions Outside the River* (SOW).

4. Arithmetic average concentration of arsenic is compared to the Method 1 Soil Standard. For Total TEQs, the maximum concentration is compared to the EPA Residential PRG.

ARCADIS

Figure



Z



	APPROXIMATE RAA BOUNDARY
	PARCEL BOUNDARY
	EASEMENT
J9-23-12	PARCEL ID
	CHAIN LINK FENCE
o	WOODEN FENCE
S	SANITARY SEWER
<u> </u>	GUARD RAIL
S	SANITARY MANHOLE
986	ELEVATION CONTOUR
G	UTILITY POLE
	RIP RAP SWALE
	DRAINAGE SWALE
	BITUMINOUS ACCESS ROAD
	ENGINEERED BARRIER
	AREA OF PREVIOUS SOIL REMOVAL
	AVERAGING AREA BOUNDARY
	APPENDIX IX+3 SAMPLE LOCATION

GENERAL ELECTRIC COMPANY PITTSFIELD, MASSACHUSETTS THIRD ADDENDUM TO FINAL RD/RA WORK PLAN NEWELL STREET AREA II RAA

FIGURE 1

ARCADIS

Attachments

ARCADIS

Attachment A

Data Validation Report

Attachment A Data Validation Report for Supplemental Vermont Street Sampling Activities Newell Street Area II Removal Action Area

General Electric Company Pittsfield, Massachusetts

1.0 General

This attachment summarizes the Tier I and II data review performed for soil samples collected in February 2009 as part of the supplemental soil investigations conducted at the Newell Street Area II Removal Action Area (RAA), located within the General Electric Company/Housatonic River Site in Pittsfield, Massachusetts. The samples were analyzed for non-PCB 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) by SGS Environmental Services, Inc. of Wilmington, North Carolina. As further described herein, data validation was performed for seven volatile organic compound (VOC) samples, seven semi-volatile organic compound (SVOC) samples, seven metal samples, seven cyanide samples, seven sulfide samples, and seven polychlorinated dibenzo-p-dioxin (PCDD)/polychlorinated dibenzofuran (PCDF) 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 (as submitted by GE on March 30, 2007 following approval by EPA on March 15, 2007);
- Region I Tiered Organic and Inorganic Data Validation Guidelines, USEPA Region I (EPA guidelines; July 1, 1993);
- Region I Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses, USEPA Region I (June 13, 1988) (Modified February 1989);
- Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses, USEPA Region I (Draft, December 1996); and
- National Functional Guidelines for Dioxin/Furan Data Validation, USEPA (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 A-1. Each sample subject to evaluation is listed in Table A-1 to document that data review was performed. Samples that required data qualification are listed separately.

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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 in parentheses. 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 EPA guidelines. 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.

Parameter	Tier I Only						
	Samples	Duplicates	Blanks	Samples	Duplicates	Blanks	Total
VOCs	0	0	0	5	1	1	7
SVOCs	0	0	0	5	1	1	7
Metals	0	0	0	5	1	1	7

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

		Tier I Only		Tier I & Tier II			
Parameter	Samples	Duplicates	Blanks	Samples	Duplicates	Blanks	Total
PCDDs/PCDFs	0	0	0	5	1	1	7
Sulfides	0	0	0	5	1	1	7
Cyanides	0	0	0	5	1	1	7
Total	0	0	0	30	6	6	42

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

When qualification of 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 achieved. The compounds that did not achieve the initial calibration criterion and the number of samples qualified are presented in the following table.

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	1,2-Dibromo-3-chloropropane	1	J
	1,4-Dioxane	7	J
	2-Butanone	1	J
	2-Chloroethylvinylether	6	J
	4-Methyl-2-pentanone	1	J
	Acetone	1	J
	Acetonitrile	7	J
	Acrolein	7	J
	Acrylonitrile	1	J
	Dibromomethane	1	J
	Isobutanol	7	J
	Methacrylonitrile	1	J
	Propionitrile	7	J
	trans-1,4-Dichloro-2-butene	1	J

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Compounds Qualified Due to Initial Calibration Deviations (RRF)

Analysis	Compound	Number of Affected Samples	Qualification
SVOCs	1,3,5-Trinitrobenzene	7	J
	2,4-Dinitrophenol	7	J
	4,6-Dinitro-2-methylphenol	7	J
	4-Nitroquinoline-1-oxide	7	J
	Hexachlorophene	7	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 for VOCs and SVOCs be less than 25%. 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	1,2-Dibromo-3-chloropropane	6	J
	1,4-Dioxane	6	J
	2-Chloroethylvinylether	1	J
	Acetone	7	J
	Acetonitrile	6	J
	Acrolein	7	J
	Acrylonitrile	6	J
	Dichlorodifluoromethane	6	J
	Isobutanol	7	J
	Methacrylonitrile	6	J
	Propionitrile	6	J
SVOCs	2,4-Dinitrophenol	6	J
	3,3'-Dimethylbenzidine	6	J

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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 these 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	Arsenic	1	J
	Beryllium	7	J
	Cadmium	6	J
	Copper	6	J
	Lead	1	J
	Thallium	1	J
	Tin	1	J

Analytes Qualified Due to CRDL Standard Recovery Deviations

Matrix spike/matrix spike duplicate (MS/MSD) sample analysis recovery criteria for organics require that the MS/MSD recovery be within the laboratory-generated QC acceptance limits specified on the MS/MSD reporting form and inorganics MS/MSD 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) and sample results associated with MS/MSD recoveries less than 10% and 30%, respectively, were qualified as rejected (R). The compounds/analytes 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	Compound/Analyte	Number of Affected Samples	Qualification
VOCs	Chloromethane	1	J
	Vinyl Chloride	1	J
	1,1,1,2-Tetrachloroethane	1	J
	1,1,1-Trichloroethane	1	J
	1,1-Dichloroethene	1	J
	1,2-Dibromoethane	1	J
	2-Chloroethylvinylether	1	R
	Benzene	1	J
	Bromodichloromethane	1	J
	Bromoform	1	J
	Carbon Disulfide	1	J
	Chlorobenzene	1	J
	cis-1,3-Dichloropropene	1	J
	Dibromochloromethane	1	J

Compounds/Analytes Qualified Due to MS/MSD Recovery Deviations

Analysis	Compound/Analyte	Number of Affected Samples	Qualification
VOCs	Dibromomethane	1	J
(continued)	Dichlorodifluoromethane	1	J
	Ethylbenzene	1	J
	Methylene Chloride	1	J
	Styrene	1	J
	Tetrachloroethene	1	J
	Toluene	1	J
	trans-1,2-Dichloroethene	1	J
	Trichloroethene	1	J
	Trichlorofluoromethane	1	J
	Xylenes (total)	1	J
	1,1,2,2-Tetrachloroethane	1	J
	1,1-Dichloroethane	1	J
	1,2-Dichloroethane	1	J
	1,2-Dichloropropane	1	J
	Carbon Tetrachloride	1	J
	Chloroform	1	J
	trans-1,3-Dichloropropene	1	J
	trans-1,4-Dichloro-2-butene	1	J
Inorganics	Antimony	6	J
Miscellaneous	Sulfide	2	J

Compounds/Analytes Qualified Due to MS/MSD Recovery Deviations

MS/MSD sample analysis recovery criteria for organics require that the RPD between the MS and MSD recoveries be less than the laboratory-generated QC acceptance limits specified on the MS/MSD reporting form. The compounds that exceeded the RPD limit and the number of samples qualified due to such a deviation are presented in the following table.

L					
Analysis	Compound	Number of Affected Samples	Qualification		
VOCs	1,1,1,2-Tetrachloroethane	1	J		
	1,1,1-Trichloroethane	1	J		
	1,1,2,2-Tetrachloroethane	1	J		
	1,2,3-Trichloropropane	1	J		
	1,2-Dibromo-3-chloropropane	1	J		
	1,2-Dibromoethane	1	J		
	1,2-Dichloropropane	1	J		
	Benzene	1	J		
	Bromodichloromethane	1	J		

Compounds Qualified Due to MS/MSD RPD Deviations

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	Bromoform	1	J
(continued)	Carbon Disulfide	1	J
	Carbon Tetrachloride	1	J
	Chlorobenzene	1	J
	cis-1,3-Dichloropropene	1	J
	Dibromochloromethane	1	J
	Dibromomethane	1	J
	Dichlorodifluoromethane	1	J
	Ethylbenzene	1	J
	lodomethane	1	J
	Styrene	1	J
	Tetrachloroethene	1	J
	Toluene	1	J
	trans-1,2-Dichloroethene	1	J
	trans-1,3-Dichloropropene	1	J
	trans-1,4-Dichloro-2-butene	1	J
	Trichloroethene	1	J
	Vinyl Chloride	1	J
	Xylenes (total)	1	J

Compounds Qualified Due to MS/MSD RPD Deviations

Laboratory control sample/laboratory control sample duplicate (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 limits specified on the LCS/LCSD reporting form. The compounds that exceeded the RPD limit and the number of samples qualified due to such deviations are presented in the following table.

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	2-Butanone	6	J
	Acetone	6	J

Compounds Qualified Due to LCS/LCSD RPD Deviations

As specified in the PCDD/PCDF method, the ion abundance ratio in the sample must be within 15% of the theoretical ion abundance ratio. Sample results associated with ion abundance ratio recoveries outside the specified control limits were qualified as estimated (J). The PCDD/PCDF compounds that exhibited ion abundance ratio recoveries greater than 15% are presented in the following table.

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Analysis	Compound	Number of Affected Samples	Qualification
PCDDs/PCDFs	1,2,3,4,7,8-HxCDF	1	J
	1,2,3,7,8-PeCDD	1	J
	2,3,7,8-TCDD	2	J

Compounds Qualified Due to Ion Ratio Deviations

According to the laboratory narrative, the presence of qualitative interference could cause a false positive or an overestimation of the affected compounds during PCDD/PCDF analysis. The PCDD/PCDF compounds that exhibited qualitative interference contamination are presented in the following table.

Compounds Qualified Due to Qualitative Interference Contamination Deviations

Analysis	Compound	Number of Affected Samples	Qualification
PCDDs/PCDFs	1,2,3,4,7,8-HxCDF	2	J
	HxCDFs (total)	2	J
	PeCDDs (total)	1	J
	PeCDFs (total)	4	J
	TCDDs (total)	1	J
	TCDFs (total)	2	J

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				
VOCs	99.9	A total of one sample result was rejected due to MS/MSD recovery deviations.				
SVOCs	100	None				
PCDDs/PCDFs	100	None				
Metals	100	None				
Sulfides	100	None				
Cyanides	100	None				

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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 duplicate sample results. The duplicate samples used to evaluate precision included field duplicates, MS/MSD samples, ICP serial dilutions, and LCS/LCSD samples. For this analytical program, 1.9% of the data required qualification due to MS/MSD RPD deviations and 0.80% of the data required qualification due to LCS/LCSD RPD deviations. None of the data was qualified due to field duplicate RPD deviations or ICP serial dilutions.

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 program, 10.6% of the data required qualification due to instrument calibration deviations, 2.7% of the data required qualification due to CRDL recovery deviations. None of the data required qualification due to internal standard recovery deviations, LCS/LCSD recovery deviations, or 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 plans, 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 holding time deviations.

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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 in February 2009 were analyzed by EPA SW-846 method 8260 for VOCs, 8270 for SVOCs, 8290 for PCDDs/PCDFs, 6000/7000 for metals, 9030 for sulfides, and 9014 for cyanides.

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.

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Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
G582-327	VT-SB-1 (1 - 3)	2/25/2009	Soil	Tier II	Yes	Antimony	MS/MSD %R	59.6% 55.7%	75% to 125%	ND(4.15) J	
0002 02.		2,20,2000	001		100	Bervllium	CRDL Standard %R	127.0%	80% to 120%	ND(1.04) J	
						Cadmium	CRDL Standard %R	73.2%	80% to 120%	ND(0.518) J	
						Copper	CRDL Standard %R	132.0%	80% to 120%	18.5 J	
G582-327	VT-SB-2 (1 - 3)	2/25/2009	Soil	Tier II	Yes	Antimony	MS/MSD %R	59.6%, 55.7%	75% to 125%	ND(4.09) J	
						Beryllium	CRDL Standard %R	127.0%	80% to 120%	ND(1.02) J	
						Cadmium	CRDL Standard %R	73.2%	80% to 120%	ND(0.511) J	
0.500.007		0/05/0000		T : 0		Copper	CRDL Standard %R	132.0%	80% to 120%	21.2 J	
G582-327	VI-SB-3 (1 - 3)	2/25/2009	Soll	lier II	Yes	Antimony	MS/MSD %R CPDL Standard % P	59.6%, 55.7%	75% to 125%	ND(4.77) J	
						Cadmium	CRDL Standard %R	73.2%	80% to 120%	ND(1.19) J	
						Copper	CRDL Standard %R	132.0%	80% to 120%	21.4.1	
G582-327	VT-SB-4 (1 - 3)	2/25/2009	Soil	Tier II	Yes	Antimony	MS/MSD %R	59.6%, 55.7%	75% to 125%	ND(3.87) J	
						Beryllium	CRDL Standard %R	127.0%	80% to 120%	ND(0.967) J	
						Cadmium	CRDL Standard %R	73.2%	80% to 120%	ND(0.484) J	
						Copper	CRDL Standard %R	132.0%	80% to 120%	8.21 J	
G582-327	VT-SB-5 (1 - 3)	2/25/2009	Soil	Tier II	Yes	Antimony	MS/MSD %R	59.6%, 55.7%	75% to 125%	ND(3.74) J	
						Beryllium	CRDL Standard %R	127.0%	80% to 120%	ND(0.935) J	
						Cappar	CRDL Standard %R	13.2%	80% to 120%	ND(0.468) J	
CE02 227		2/25/2000	Soil	Tior II	Voc	Antimony		132.0%	75% to 125%	7.74 J	Duplicate of VT SP 5
0302-327	V1-3B-D0F-1 (1-3)	2/23/2009	301	TIEL II	165	Beryllium	CRDL Standard %R	127.0%	80% to 120%	ND(0.886) J	Duplicate of VT-SB-5
						Cadmium	CRDL Standard %R	73.2%	80% to 120%	ND(0.443) J	
						Copper	CRDL Standard %R	132.0%	80% to 120%	8.95 J	
G582-327	VT-SB-RB-1	2/25/2009	Water	Tier II	Yes	Arsenic	CRDL Standard %R	142.0%	80% to 120%	ND(0.0100) J	
						Beryllium	CRDL Standard %R	70.8%	80% to 120%	ND(0.0100) J	
			1			Lead	CRDL Standard %R	47.8%	80% to 120%	ND(0.0100) J	
						Thallium	CRDL Standard %R	51.2%	80% to 120%	ND(0.0100) J	
VOCc						Tih	CRDL Standard %R	136.0%	80% to 120%	ND(0.100) J	
G582-327	VT-SB-1 (1 - 3)	2/25/2009	Soil	Tior II	Ves	1 2-Dibromo-3-chloropropage		28.0%	~25%	ND(0.025) 1	
0302-327	V1-5D-1 (1-5)	2/20/2000	001			1 4-Dioxane		0.003	>0.05	ND(5.0).1	
						1,4-Dioxane	CCAL %D	26.3%	<25%	ND(5.0) J	
						2-Butanone	LCS/LCSD RPD	43.7%	<30%	ND(0.012) J	
						2-Chloroethylvinylether	ICAL RRF	0.009	>0.05	ND(0.025) J	
						Acetone	CCAL %D	46.2%	<25%	0.042 J	
						Acetone	LCS/LCSD RPD	76.3%	<30%	0.042 J	
						Acetonitrile		0.024	>0.05	ND(0.99) J	
						Acetonithie		28.2%	<25%	ND(0.99) J	
						Acrolein	CCAL %D	76.5%	<25%	ND(0.061) J	
						Acrylonitrile	CCAL %D	27.9%	<25%	ND(0.050) J	
						Dichlorodifluoromethane	CCAL %D	25.8%	<25%	ND(0.0050) J	
						Isobutanol	ICAL RRF	0.016	>0.05	ND(2.5) J	
						Isobutanol	CCAL %D	38.4%	<25%	ND(2.5) J	
						Methacrylonitrile	CCAL %D	33.3%	<25%	ND(0.50) J	
						Propionitrile	ICAL RRF	0.045	>0.05	ND(0.99) J	
C592 227	VT SP 2 (1 2)	2/25/2000	Soil	Tior II	Voc	Propionitrile		32.3%	<25%	ND(0.99) J	
G562-327	VI-3B-2 (I-3)	2/25/2009	301	THEFT II	res	1,1,1,2-Tetrachloroethane	MS/MSD %R	50.2%, 57.0%	<30%	ND(0.0054) J	
						1.1.1-Trichloroethane	MS/MSD %R	71.0%, 51.6%	78.4% to 121%	ND(0.0054) J	
						1,1,1-Trichloroethane	MS/MSD RPD	31.6%	<30%	ND(0.0054) J	
						1,1,2,2-Tetrachloroethane	MS/MSD RPD	42.7%	<30%	ND(0.0054) J	
						1,1,2,2-Tetrachloroethane	MSD %R	51.0%	75.7% to 136%	ND(0.0054) J	
						1,1-Dichloroethane	MSD %R	59.8%	71.6% to 139%	ND(0.0054) J	
1						1,1-Dichloroethene	MS/MSD %R	66.6%, 51.7%	72.0% to 135%	ND(0.0054) J	
1						1,2,3- I richloropropane		53.1%	<30%	ND(0.0054) J	
	1					1,2-Dibromo-3-chloropropane		28.0%	<25%	ND(0.027) J	
1						1 2-Dibromoethane	MS/MSD %R	58 7% 39 8%	<30% 74 7% to 161%	ND(0.027) J	<u> </u>
1						1.2-Dibromoethane	MS/MSD RPD	38.2%	<30%	ND(0.0054) J	
1						1,2-Dichloroethane	MSD %R	61.3%	72.9% to 146%	ND(0.0054) J	1
1						1,2-Dichloropropane	MS/MSD RPD	33.5%	<30%	ND(0.0054) J	
						1,2-Dichloropropane	MSD %R	56.1%	76.1% to 136%	ND(0.0054) J	

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
VOCs (contin	nued)										
G582-327	VT-SB-2 (1 - 3)	2/25/2009	Soil	Tier II	Yes	1,4-Dioxane	CCAL %D	26.3%	<25%	ND(5.4) J	
						1,4-Dioxane	ICAL RRF	0.003	>0.05	ND(5.4) J	
						2-Butanone	LCS/LCSD RPD	43.7%	<30%	ND(0.013) J	
						2-Chloroethylvinylether	MS/MSD %R	0.0%, 0.0%	16.7% to 200%	R	
						Acetone	CCAL %D	46.2%	<25%	0.012 J	
						Acetonitrile		28.2%	<30 %	ND(1.1) I	
						Acetonitrile		0.024	>0.05	ND(1.1) J	
						Acrolein	CCAL %D	76.5%	<25%	ND(0.066) J	
						Acrolein	ICAL RRF	0.017	>0.05	ND(0.066) J	
						Acrylonitrile	CCAL %D	27.9%	<25%	ND(0.054) J	
						Benzene	MS/MSD %R	72.5%, 51.4%	74.8% to 133%	ND(0.0054) J	
						Benzene	MS/MSD RPD	34.0%	<30%	ND(0.0054) J	
						Bromodichloromethane	MS/MSD %R	68.5%, 49.8%	77.4% to 140%	ND(0.0054) J	
						Bromoform	MS/MSD %R	63.9% 40.8%	<30 %	ND(0.0054) J	
						Bromoform	MS/MSD RPD	44 1%	<30%	ND(0.0054) J	
						Carbon Disulfide	MS/MSD %R	48.4%, 28.5%	64.3% to 145%	ND(0.0054) J	
						Carbon Disulfide	MS/MSD RPD	51.7%	<30%	ND(0.0054) J	
						Carbon Tetrachloride	MS/MSD RPD	37.3%	<30%	ND(0.0054) J	
						Carbon Tetrachloride	MSD %R	46.5%	64.2% to 142%	ND(0.0054) J	
						Chlorobenzene	MS/MSD %R	43.4%, 25.6%	64.3% to 145%	ND(0.0054) J	
						Chlorobenzene	MS/MSD RPD	51.7%	<30%	ND(0.0054) J	
						Chloromethane	MSD %R MS %R	58.2%	71.1% to 143%	ND(0.0054) J	
						cis-1 3-Dichloropropene	MS/MSD %R	52.3% 36.0%	72 1% to 146%	ND(0.0054) J	
						cis-1,3-Dichloropropene	MS/MSD RPD	37.0%	<30%	ND(0.0054) J	
						Dibromochloromethane	MS/MSD %R	64.4%, 45.0%	64.3% to 145%	ND(0.0054) J	
						Dibromochloromethane	MS/MSD RPD	35.5%	<30%	ND(0.0054) J	
						Dibromomethane	MS/MSD %R	74.4%, 51.5%	80.0% to 150%	ND(0.0054) J	
						Dibromomethane	MS/MSD RPD	36.5%	<30%	ND(0.0054) J	
						Dichlorodifluoromethane	CCAL %D	25.8%	<25%	ND(0.0054) J	
						Dichlorodifluoromethane	MS/MSD %R MS/MSD RPD	49.0%, 72.2%	<30%	ND(0.0054) J	
						Ethylbenzene	MS/MSD %R	45.8%, 26.1%	80.0% to 150%	ND(0.0054) J	
						Ethylbenzene	MS/MSD RPD	54.8%	<30%	ND(0.0054) J	
						lodomethane	MS/MSD RPD	31.0%	<30%	ND(0.0054) J	
						Isobutanol	CCAL %D	38.4%	<25%	ND(2.7) J	
						Isobutanol	ICAL RRF	0.016	>0.05	ND(2.7) J	
						Methacrylonitrile	CCAL %D	33.3%	<25%	ND(0.54) J	
						Propionitrilo	MS/MSD %R	14.9%, 19.3%	48.6% 10 155%	ND(0.0054) J	
						Propionitrile		0.045	>0.05	ND(1.1) J	
						Styrene	MS/MSD %R	41.3%, 20.8%	73.2% to 123%	ND(0.0054) J	
						Styrene	MS/MSD RPD	66.1%	<30%	ND(0.0054) J	
						Tetrachloroethene	MS/MSD %R	40.6%, 23.8%	45.8% to 153%	ND(0.0054) J	
						Tetrachloroethene	MS/MSD RPD	52.4%	<30%	ND(0.0054) J	
						Toluene	MS/MSD %R	54.5%, 34.2%	66.4% to 128%	ND(0.0054) J	
						I oluene	MS/MSD RPD	45.8%	<30%	ND(0.0054) J	
						trans-1,2-Dichloroethene	MS/MSD %R	30.1%	72.0% t0 135%	ND(0.0054) J	
						trans-1,3-Dichloropropene	MS/MSD RPD	47.8%	<30%	ND(0.0054) J	
						trans-1,3-Dichloropropene	MSD %R	30.3%	44.7% to 144%	ND(0.0054) J	
						trans-1,4-Dichloro-2-butene	MS/MSD RPD	64.1%	<30%	ND(0.012) J	
						trans-1,4-Dichloro-2-butene	MSD %R	37.2%	53.4% to 146%	ND(0.012) J	
						Trichloroethene	MS/MSD %R	55.8%, 35.4%	84.9% to 136%	ND(0.0054) J	
						Trichloroethene	MS/MSD RPD	44.8%	<30%	ND(0.0054) J	
						I richlorofluoromethane	MS/MSD %R	48.2%, 49.1%	76.8% to 132%	ND(0.0054) J	
						Vinyl Chloride		36.1%	20%	ND(0.0054) J	
						Xylenes (total)	MS/MSD %R	47.0% 25.4%	79.8% to 118%	ND(0.0054) J	
						Xylenes (total)	MS/MSD RPD	60.8%	<30%	ND(0.0054) J	
G582-327	VT-SB-3 (1 - 3)	2/25/2009	Soil	Tier II	Yes	1,2-Dibromo-3-chloropropane	CCAL %D	28.0%	<25%	ND(0.029) J	
				1	1	1,4-Dioxane	ICAL RRF	0.003	>0.05	ND(5.9) J	

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
VOCS (COIIII		0/05/0000	0-1	Tinell	¥	4.4 Disusse	004L %/D	00.00/	050/		
G582-327	VI-SB-3 (1 - 3)	2/25/2009	501	i ier ii	res	1,4-Dioxane		20.3%	<25%	ND(5.9) J	
						2 Chloroothylyipylothor		43.7%	<30%	ND(0.015) J	
								46.2%	<25%	0.037 1	
						Acetone	LCS/LCSD RPD	76.3%	<30%	0.037 J	
						Acetonitrile	ICAL RRF	0.024	>0.05	ND(1.2) J	
						Acetonitrile	CCAL %D	28.2%	<25%	ND(1,2) J	
						Acrolein	ICAL RRF	0.017	>0.05	ND(0.072) J	
						Acrolein	CCAL %D	76.5%	<25%	ND(0.072) J	
						Acrylonitrile	CCAL %D	27.9%	<25%	ND(0.059) J	
						Dichlorodifluoromethane	CCAL %D	25.8%	<25%	ND(0.0059) J	
						Isobutanol	ICAL RRF	0.016	>0.05	ND(2.9) J	
						Isobutanol	CCAL %D	38.4%	<25%	ND(2.9) J	
						Methacrylonitrile	CCAL %D	33.3%	<25%	ND(0.59) J	
						Propionitrile		0.045	>0.05	ND(1.2) J	
C592 227	VT SP 4 (1 2)	2/25/2000	Soil	Tior II	Voc	1 2 Dibromo 2 obloropropano		32.3%	<25%	ND(1.2) J	
G562-327	V1-3B-4 (1 - 3)	2/25/2009	301	Tier II	res	1,2-Dibromo-3-chioropropane		20.0%	<23%	ND(0.026) J	
						1 4-Dioxane	CCAL %D	26.3%	<25%	ND(5.5) J	
						2-Butanone	LCS/LCSD RPD	43.7%	<30%	ND(0.014) J	
						2-Chloroethylvinylether	ICAL RRF	0.009	>0.05	ND(0.028) J	
						Acetone	CCAL %D	46.2%	<25%	0.014 J	
						Acetone	LCS/LCSD RPD	76.3%	<30%	0.014 J	
						Acetonitrile	ICAL RRF	0.024	>0.05	ND(1.1) J	
						Acetonitrile	CCAL %D	28.2%	<25%	ND(1.1) J	
						Acrolein	ICAL RRF	0.017	>0.05	ND(0.068) J	
						Acrolein	CCAL %D	76.5%	<25%	ND(0.068) J	
						Acrylonitrile	CCAL %D	27.9%	<25%	ND(0.055) J	
						Dichlorodifluoromethane		25.8%	<25%	ND(0.0055) J	
						Isobutanol		38.4%	>0.05	ND(2.0) J	
						Methacrylonitrile		33.3%	<25%	ND(2.0) J	
						Propionitrile	ICAL RRF	0.045	>0.05	ND(1.1) J	
						Propionitrile	CCAL %D	32.3%	<25%	ND(1.1) J	
G582-327	VT-SB-5 (1 - 3)	2/25/2009	Soil	Tier II	Yes	1,2-Dibromo-3-chloropropane	CCAL %D	28.0%	<25%	ND(0.024) J	
						1,4-Dioxane	ICAL RRF	0.003	>0.05	ND(4.7) J	
						1,4-Dioxane	CCAL %D	26.3%	<25%	ND(4.7) J	
						2-Butanone	LCS/LCSD RPD	43.7%	<30%	ND(0.012) J	
						2-Chloroethylvinylether	ICAL RRF	0.009	>0.05	ND(0.024) J	
						Acetone		46.2%	<25%	ND(0.012) J	
						Acetonie		10.3%	<30%	ND(0.012) J	
						Acetonitrile		28.2%	<25%	ND(0.94) J	
						Acrolein		0.017	>0.05	ND(0.058).1	
						Acrolein	CCAL %D	76.5%	<25%	ND(0.058) J	
						Acrylonitrile	CCAL %D	27.9%	<25%	ND(0.047) J	
						Dichlorodifluoromethane	CCAL %D	25.8%	<25%	ND(0.0047) J	
						Isobutanol	ICAL RRF	0.016	>0.05	ND(2.4) J	
						Isobutanol	CCAL %D	38.4%	<25%	ND(2.4) J	
						Methacrylonitrile	CCAL %D	33.3%	<25%	ND(0.47) J	
						Propionitrile	ICAL RRF	0.045	>0.05	ND(0.94) J	
0500.007		0/05/0000	0	Ting U	¥	Propionitrile	CCAL %D	32.3%	<25%	ND(0.94) J	Dualizate of VT OD 5
G582-327	VI-SB-DUP-1 (1 - 3)	2/25/2009	501	i ier ii	Yes	1,2-UIDFOMO-3-Chloropropane		28.0%	<25%	ND(0.024) J	Duplicate of V1-SB-5
								26.3%	>0.00	ND(4.7) J	
						2-Butanone	LCS/LCSD RPD	43.7%	<30%	ND(0.012).1	1
						2-Chloroethylvinylether	ICAL RRF	0,009	>0.05	ND(0.024) J	
						Acetone	CCAL %D	46.2%	<25%	0.0093 J	1
						Acetone	LCS/LCSD RPD	76.3%	<30%	0.0093 J	
						Acetonitrile	ICAL RRF	0.024	>0.05	ND(0.94) J	
						Acetonitrile	CCAL %D	28.2%	<25%	ND(0.94) J	
						Acrolein	ICAL RRF	0.017	>0.05	ND(0.058) J	
						Acrolein	CCAL %D	76.5%	<25%	ND(0.058) J	
1					1	ACTVIONITILE	ILLAL %D	27.9%	<25%	ND(0.047) J	1

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)	0/05/0000	0.1		N/			05.00/	050/		1
G582-327	VI-SB-DUP-1 (1 - 3)	2/25/2009	Soil	lier II	Yes	Dichlorodifluoromethane	ICAL BDE	25.8%	<25%	ND(0.0047) J	
						Isobutanol		0.016	>0.05	ND(2.4) J	
						Methacrylonitrile	CCAL %D	33.3%	<25%	ND(2.4) J	
						Propionitrile		0.045	>0.05	ND(0.94).1	
						Propionitrile	CCAL %D	32.3%	<25%	ND(0.94) J	
G582-327	VT-SB-RB-1	2/25/2009	Water	Tier II	Yes	1,2-Dibromo-3-chloropropane	ICAL RRF	0.011	>0.05	ND(0.0050) J	
						1,4-Dioxane	ICAL RRF	0.000	>0.05	ND(0.10) J	
						2-Butanone	ICAL RRF	0.027	>0.05	ND(0.0050) J	
						2-Chloroethylvinylether	ICAL RRF	0.003	>0.05	ND(0.013) J	
						2-Chloroethylvinylether	CCAL %D	33.3%	<25%	ND(0.013) J	
						4-Methyl-2-pentanone		0.049	>0.05	ND(0.0050) J	
						Acetone		0.020	>0.05	ND(0.0050) J	
						Acetonitrile		0.005	>0.05	ND(0.0030) J	
						Acrolein	ICAL RRF	0.003	>0.05	ND(0.025) J	
						Acrolein	CCAL %D	200.0%	<25%	ND(0.025) J	
						Acrylonitrile	ICAL RRF	0.017	>0.05	ND(0.025) J	
						Dibromomethane	ICAL RRF	0.041	>0.05	ND(0.0010) J	
						Isobutanol	ICAL RRF	0.001	>0.05	ND(0.050) J	
						Isobutanol	CCAL %D	100.0%	<25%	ND(0.050) J	
						Methacrylonitrile	ICAL RRF	0.037	>0.05	ND(0.010) J	
						Propionitrile		0.006	>0.05	ND(0.020) J	
SVOCa						trans-1,4-Dichloro-2-Duterie		0.009	>0.05	ND(0.0050) J	
GE92 227	V/T SP 1 (1 2)	2/25/2000	Soil	Tior II	Voc	125 Tripitrobopzopo		0.014	>0.05		
0302-327	V1-3B-1 (1-3)	2/23/2009	301	TIEL II	165	2 4-Dinitrophenol		0.014	>0.05	ND(1.7) J	
						2.4-Dinitrophenol	CCAL %D	102.0%	<25%	ND(1.7) J	
						3,3'-Dimethylbenzidine	CCAL %D	33.8%	<25%	ND(1.7) J	
						4,6-Dinitro-2-methylphenol	ICAL RRF	0.026	>0.05	ND(1.7) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.02	>0.05	ND(1.7) J	
						Hexachlorophene	ICAL RRF	0.023	>0.05	ND(0.34) J	
G582-327	VT-SB-2 (1 - 3)	2/25/2009	Soil	Tier II	Yes	1,3,5-Trinitrobenzene	ICAL RRF	0.014	>0.05	ND(1.7) J	
						2,4-Dinitrophenol		0.026	>0.05	ND(1.7) J	
						2,4-Dinitrophenol		102.0%	<25%	ND(1.7) J	
						4.6-Dinitro-2-methylphenol		0.026	<25%	ND(1.7) J	
						4-Nitroquinoline-1-oxide		0.020	>0.05	ND(1.7) J	
						Hexachlorophene	ICAL RRF	0.023	>0.05	ND(0.34) J	
G582-327	VT-SB-3 (1 - 3)	2/25/2009	Soil	Tier II	Yes	1,3,5-Trinitrobenzene	ICAL RRF	0.014	>0.05	ND(1.9) J	
	. ,					2,4-Dinitrophenol	ICAL RRF	0.026	>0.05	ND(1.9) J	
						2,4-Dinitrophenol	CCAL %D	102.0%	<25%	ND(1.9) J	
						3,3'-Dimethylbenzidine	CCAL %D	33.8%	<25%	ND(1.9) J	
						4,6-Dinitro-2-methylphenol	ICAL RRF	0.026	>0.05	ND(1.9) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.020	>0.05	ND(1.9) J	
0500.007		0/05/0000	0-1	Ting U	V	Hexachlorophene	ICAL RRF	0.023	>0.05	ND(0.37) J	
G582-327	V1-SB-4 (1 - 3)	2/25/2009	501	Tier II	res	1,3,5-1 Initropenzene		0.014	>0.05	ND(1.7) J	
						2,4-Dinitrophenol		102.0%	>0.05	ND(1.7) J	
						3 3'-Dimethylbenzidine	CCAL %D	33.8%	<25%	ND(1.7) J	
						4.6-Dinitro-2-methylphenol	ICAL RRF	0.026	>0.05	ND(1.7) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.020	>0.05	ND(1.7) J	
						Hexachlorophene	ICAL RRF	0.023	>0.05	ND(0.34) J	
G582-327	VT-SB-5 (1 - 3)	2/25/2009	Soil	Tier II	Yes	1,3,5-Trinitrobenzene	ICAL RRF	0.014	>0.05	ND(1.7) J	
						2,4-Dinitrophenol	ICAL RRF	0.026	>0.05	ND(1.7) J	
						2,4-Dinitrophenol	CCAL %D	102.0%	<25%	ND(1.7) J	
						3,3'-Dimethylbenzidine	CCAL %D	33.8%	<25%	ND(1.7) J	
						4,6-Dinitro-2-methylphenol		0.026	>0.05	ND(1.7) J	
								0.020	>0.05	ND(1.7) J	
G582-327	VT-SB-DUP-1 (1 - 3)	2/25/2009	Soil	Tier II	Yes	1.3.5-Trinitrobenzene		0.023	>0.05	ND(0.34) J	Duplicate of VT-SB-5
SOUL OF		2,20,2000	001		100	2.4-Dinitrophenol	ICAL RRF	0.026	>0.05	ND(1.6) J	
						2,4-Dinitrophenol	CCAL %D	102.0%	<25%	ND(1.6) J	1
						3,3'-Dimethylbenzidine	CCAL %D	33.8%	<25%	ND(1.6) J	

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
SVOCs (con	tinued)										
G582-327	VT-SB-DUP-1 (1 - 3)	2/25/2009	Soil	Tier II	Yes	4,6-Dinitro-2-methylphenol	ICAL RRF	0.026	>0.05	ND(1.6) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.020	>0.05	ND(1.6) J	
						Hexachlorophene	ICAL RRF	0.023	>0.05	ND(0.33) J	
G582-327	VT-SB-RB-1	2/25/2009	Water	Tier II	Yes	1,3,5-Trinitrobenzene	ICAL RRF	0.014	>0.05	ND(0.025) J	
						2,4-Dinitrophenol	ICAL RRF	0.026	>0.05	ND(0.025) J	
						4,6-Dinitro-2-methylphenol	ICAL RRF	0.026	>0.05	ND(0.025) J	
						4-Nitroquinoline-1-oxide	ICAL RRF	0.020	>0.05	ND(0.025) J	
						Hexachlorophene	ICAL RRF	0.023	>0.05	ND(0.0051) J	
PCDDs/PCD	Fs										
G582-327	VT-SB-1 (1 - 3)	2/25/2009	Soil	Tier II	Yes	1,2,3,4,7,8-HxCDF	Quantitative Interference	-	-	0.000020 J	
						1,2,3,7,8-PeCDD	Ion Ratio	0.83	1.24 to 1.86	ND(0.00000053) J	
						2,3,7,8-TCDD	Ion Ratio	0.44	0.65 to 0.89	ND(0.0000031) J	
						HxCDFs (total)	Quantitative Interference	-	-	0.00033 J	
						PeCDFs (total)	Quantitative Interference	-	-	0.00033 J	
						TCDDs (total)	Quantitative Interference	-	-	0.0000023 J	
						TCDFs (total)	Quantitative Interference	-	-	0.00022 J	
G582-327	VT-SB-2 (1 - 3)	2/25/2009	Soil	Tier II	Yes	1,2,3,4,7,8-HxCDF	Quantitative Interference	-	-	0.000024 J	
						2,3,7,8-TCDD	Ion Ratio	0.53	0.65 to 0.89	ND(0.0000023) J	
						HxCDFs (total)	Quantitative Interference	-	-	0.00059 J	
						PeCDDs (total)	Quantitative Interference	-	-	0.000011 J	
						PeCDFs (total)	Quantitative Interference	-	-	0.00050 J	
						TCDFs (total)	Quantitative Interference	-	-	0.00027 J	
G582-327	VT-SB-3 (1 - 3)	2/25/2009	Soil	Tier II	Yes	1,2,3,4,7,8-HxCDF	Ion Ratio	1.47	1.05 to 1.43	ND(0.0000066) J	
						PeCDFs (total)	Quantitative Interference	-	-	0.000025 J	
G582-327	VT-SB-4 (1 - 3)	2/25/2009	Soil	Tier II	Yes	PeCDFs (total)	Quantitative Interference	-	-	0.00013 J	
G582-327	VT-SB-5 (1 - 3)	2/25/2009	Soil	Tier II	No						
G582-327	VT-SB-DUP-1 (1 - 3)	2/25/2009	Soil	Tier II	No						Duplicate of VT-SB-5
G582-327	VT-SB-RB-1	2/25/2009	Water	Tier II	No						
Cyanides											
G582-327	VT-SB-1 (1 - 3)	2/25/2009	Soil	Tier II	No						
G582-327	VT-SB-2 (1 - 3)	2/25/2009	Soil	Tier II	No						
G582-327	VT-SB-3 (1 - 3)	2/25/2009	Soil	Tier II	No						
G582-327	VT-SB-4 (1 - 3)	2/25/2009	Soil	Tier II	No						
G582-327	VT-SB-5 (1 - 3)	2/25/2009	Soil	Tier II	No						
G582-327	VT-SB-DUP-1 (1 - 3)	2/25/2009	Soil	Tier II	No						Duplicate of VT-SB-5
G582-327	VT-SB-RB-1	2/25/2009	Water	Tier II	No						
Sulfides											
G582-327	VT-SB-1 (1 - 3)	2/25/2009	Soil	Tier II	No						
G582-327	VT-SB-2 (1 - 3)	2/25/2009	Soil	Tier II	Yes	Sulfide	MS/MSD %R	65.0%, 57.0%	75% to 125%	ND(2.10) J	
G582-327	VT-SB-3 (1 - 3)	2/25/2009	Soil	Tier II	No						
G582-327	VT-SB-4 (1 - 3)	2/25/2009	Soil	Tier II	No				1		
G582-327	VT-SB-5 (1 - 3)	2/25/2009	Soil	Tier II	No				1		
G582-327	VT-SB-DUP-1 (1 - 3)	2/25/2009	Soil	Tier II	No				1		Duplicate of VT-SB-5
G582-327	VT-SB-RB-1	2/25/2009	Water	Tier II	Yes	Sulfide	MS %R	59.0%	75% to 125%	ND(1.00) J	

ARCADIS

Attachment B

Technical Drawings

TECHNICAL DRAWINGS REMOVAL ACTION NEWELL STREET AREA II REMOVAL ACTION AREA (RAA)



LOCATION MAP

APPROX. SCALE: 1 = 2000 FEET

APRIL 2009

PREPARED FOR:



General Electric Company Pittsfield, Massachusetts

PREPARED BY:



ARCADIS U.S., INC.

04/14/09 SYRACUSE-NY, ENV141-DHOWES N:/B0030193/0000/00009/CDR/30193C01.cdr

INDEX TO DRAWINGS

COVER SHEET

- 1. EXISTING SITE PLAN
- 2. SITE PREPARATION PLAN
- 3. EXCAVATION LIMITS
- 4. SITE RESTORATION PLAN
- 5. GENERAL NOTES AND DETAILS



AREA OF ENLARGEMENT-6 \Diamond NEWE

	LEGEND
	APPROXIMATE RAA BOUNDARY
	PARCEL BOUNDARY
	EASEMENT
J9-23-12	PARCEL ID
	CHAIN LINK FENCE
	WOODEN FENCE
S	SANITARY SEWER
D	BARRIER DRAINAGE PIPE
——— E ———	ELECTRIC LINE
w	WATER LINE
	GUARD RAIL
986	ELEVATION CONTOUR
*	CONIFERIOUS TREE
8	DECIDIOUS TREE
Q	BUSH
	DRAINAGE SWALE
and the second sec	BITUMINOUS ACCESS ROAD
	ENGINEERED BARRIER
GMA1-25	MONITORING WELL

FIELD, MASSACHUSETTS EA II RAA	ARCADIS Project No. B0030193.0000.00009	
	Date APRIL 2009	4
	ARCADIS 6723 TOWPATH ROAD PO BOX 66 SYRACUSE, NEW YORK TEL 315 671 9100	I



1		LEGEND
		APPROXIMATE RAA BOUNDARY
		PARCEL BOUNDARY
		EASEMENT
	J9-23-12	PARCEL ID
+		CHAIN LINK FENCE
	o	WOODEN FENCE
	S	SANITARY SEWER
	D	BARRIER DRAINAGE PIPE
	——— Е ———	ELECTRIC LINE
	w	WATER LINE
	<u> </u>	GUARD RAIL
	986	ELEVATION CONTOUR
	*	CONIFERIOUS TREE
	•	DECIDIOUS TREE
	9	BUSH
		DRAINAGE SWALE
		BITUMINOUS ACCESS ROAD
		ENGINEERED BARRIER
		HAY BALE/SILT FENCE 5
		LIMITS OF SOIL REMOVAL

FIELD, MASSACHUSETTS EA II RAA	ARCADIS Project No. B0030193.0000.00009	
	Date APRIL 2009	2
	ARCADIS 6723 TOWPATH ROAD PO BOX 66 SYRACUSE, NEW YORK TEL. 315.671.9100	2



AREA OF ENLARGEMENT--0 \diamond NEWEL

1	LEGEND
	APPROXIMATE RAA BOUNDARY
	PARCEL BOUNDARY
	EASEMENT
J9-23-12	PARCEL ID
	CHAIN LINK FENCE
o	WOODEN FENCE
S	SANITARY SEWER
D	BARRIER DRAINAGE PIPE
——— E ———	ELECTRIC LINE
w	WATER LINE
	GUARD RAIL
986	ELEVATION CONTOUR
*	CONIFERIOUS TREE
•	DECIDIOUS TREE
6	BUSH
	DRAINAGE SWALE
	BITUMINOUS ACCESS ROAD
	ENGINEERED BARRIER
12	NON-TSCA/NON-RCRA REMOVAL (SEE NOTE 2)
GMA1-25 🕄	MONITORING WELL (SEE NOTE 3)

FIELD, MASSACHUSETTS EA II RAA	ARCADIS Project No. B0030193.0000.00009	
	Date APRIL 2009	2
	ARCADIS 6723 TOWPATH ROAD PO BOX 66 SYRACUSE, NEW YORK	3
NGS	TEL. 315.671.9100	



AREA OF ENLARGEMENT-6 \Diamond NEWE

1		
		APPROXIMATE RAA BOUNDARY
	<u> </u>	PARCEL BOUNDARY
		EASEMENT
-	J9-23-12	PARCEL ID
Ŧ		CHAIN LINK FENCE
I	o	WOODEN FENCE
	S	SANITARY SEWER
	D	BARRIER DRAINAGE PIPE
	——— E ———	ELECTRIC LINE
	w	WATER LINE
		GUARD RAIL
	986	ELEVATION CONTOUR
	*	CONIFERIOUS TREE
	*	DECIDIOUS TREE
	Θ	BUSH
		DRAINAGE SWALE
		BITUMINOUS ACCESS ROAD
		ENGINEERED BARRIER
	<u> </u>	HAY BALE/SILT FENCE 5
		VEGETATIVE RESTORATION (SEE NOTES 2 AND 3)
	GMA1-25 😯	MONITORING WELL

SFIELD, MASSACHUSETTS	ARCADIS Project No. B0030193.0000.00009	
	Date APRIL 2009	
	ARCADIS 6723 TOWPATH ROAD PO BOX 66 SYRACUSE, NEW YORK TEL. 315 671 9100	4

GENERAL NOTES - DRAWINGS 1 THROUGH 4

- 1. THE SOILS SUBJECT TO EXCAVATION AND HANDLING CONTAIN PCBs AND OTHER HAZARDOUS CONSTITUENTS AND SHOULD BE HANDLED IN ACCORDANCE WITH APPLICABLE REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING AND IMPLEMENTING APPROPRIATE HEALTH AND SAFETY MEASURES FOR ITS EMPLOYEES AND SUBCONTRACTORS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING SURVEY CONTROL AND VERIFYING EXISTING GRADES AND POST-EXCAVATION DEPTHS. GE WILL IDENTIFY LOCATION(S) AND ELEVATION(S) OF SUITABLE BENCHMARKS TO BE USED FOR SURVEY CONTROL.
- CONTROL.
 3. SELECT SITE FEATURES MAY OR MAY NOT BE SHOWN ON DRAWINGS (E.G., CONCRETE PADS, MANHOLES, ETC.). THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THESE FEATURES UNLESS OTHERWISE DIRECTED BY GE. ALSO, THE DRAWINGS MAY NOT INDICATE ALL SURFACE FEATURES SUBJECT TO REMOVING AND REPLACING (IF NECESSARY) ANY AND ALL SUCH ITEMS AT NO ADDITIONAL COST TO GE.
 4. LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES ARE APPROXIMATE. THE
- 4. LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL (SHOWN OR NOT SHOWN) ABOVE AND BELOW GROUND UTILITIES AND STRUCTURES THAT MAY EXIST WITHIN THE PROJECT LIMITS PRIOR TO COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANIES FOR THE TEMPORARY PROTECTION OF (AND/OR REMOVAL AND REPLACEMENT, AS NECESSARY, AS DETERMINED BY THE APPROPRIATE UTILITY COMPANY) ANY UTILITY POLES, GUY WRES, UNDERGROUND UTILITIES, AND/OR OVERHEAD WIRES THAT FALL WITHIN THE LIMITS OF EXCAVATION.
 BACKFILLED AND RESTORED AREAS WILL BE SUBJECT TO FINAL SURVEY VERIFICATION (BY THE CONTRACTOR). THE CONTRACTOR SHALL REPAIR ANY ITEMS THAT ARE NOT RESTORED TO THE LOCATIONS AND/OR ELEVATIONS REQUIRED BY THIS CONTRACT.
- 20. THE CONTRACTOR SHALL RESTORE TO PRE-REMEDIATION CONDITIONS ALL SUPPORT AREAS 6. EXCAVATION LIMITS SHOWN ON THE TECHNICAL DRAWINGS REPRESENT SOILS THAT REQUIRE REMOVAL TO ACHIEVE THE NECESSARY REMOVAL ACTION OUTCOME. ADDITIONAL REMOVAL THAT MAY BE NEEDED TO FACILITATE CONSTRUCTION ACCESS, RESTORATION, ETC. HAS NOT BEEN IDENTIFIED. 20. THE CONTRACTOR SHALL RESTORE TO PRE-REMEDIATION CONDITIONS ALL SUPPORT AREAS THAT ARE IMPACTED BY REMEDIATION ACTIVITIES, INCLUDING EQUIPMENT AND MATERIALS STORAGE AREAS, SOIL LOADING AND STAGING AREAS, AND PARKING AREAS. 21. ALL EQUIPMENT OPERATED WITHIN THE LIMITS OF EXCAVATION SHALL BE CLEANED PRIOR TO
- THAT MAY BE NEEDED TO FACILITATE CONSTRUCTION ACCESS, RESTORATION, ETC. HAS NOT BEEN IDENTIFIED.
 THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO AVOID DAMAGE TO STRUCTURES THAT ARE NOT SUBJECT TO REMOVAL AND REPLACEMENT AS PART OF THIS CONTRACT. THE CONTRACTOR SHALL REPAIR ANY STRUCTURAL OR EXTERNAL DAMAGES TO SUCH STRUCTURES AT NO ADDITIONAL COST TO GE.
 THE CONTRACTOR SHALL PROTECT ALL MONITORING WELLS WITHIN/ADJACENT TO LIMITS OF
 THE CONTRACTOR SHALL PROTECT ALL MONITORING WELLS WITHIN/ADJACENT TO LIMITS OF
 THE CONTRACTOR SHALL PROTECT ALL MONITORING WELLS WITHIN/ADJACENT TO LIMITS OF
 THE CONTRACTOR SHALL PROTECT ALL MONITORING WELLS WITHIN/ADJACENT TO LIMITS OF
- THE CONTRACTOR SHALL PROTECT ALL MONITORING WELLS WITHIN/ADJACENT TO LIMITS OF SOIL REMOVAL. ANY DAMAGE TO THESE WELLS WILL BE ADDRESSED BY THE CONTRACTOR AT NO ADDITIONAL COST TO GE.
- THE CONTRACTOR SHALL COORDINATE SITE ACTIVITIES TO MINIMIZE INFRINGEMENT UPON COMMERCIAL, BUSINESS AND NORMAL TRAFFIC FLOW WITHIN PARKING LOTS AND ON ADJACENT ROADWAYS.
- 10. ABOVEGROUND PORTIONS OF ITEMS SUBJECT TO REMOVAL AND REPLACEMENT TO ACCOMMODATE EXCAVATION ACTIVITIES (E.G., FENCING, ETC.) MAY BE SALVAGED FOR REUSE UPON APPROVAL BY GE OR GE'S REPRESENTATIVE. APPROVED SALVAGED MATERIALS MAY BE USED WHEN RECONSTRUCTING THESE ITEMS. BELOW-GRADE COMPONENTS AND/OR COMPONENTS THAT HAVE CONTACTED SOILS SUBJECT TO EXCAVATION SHALL BE HANDLED AND DISPOSED OF WITH THE ASSOCIATED SOILS. ALL SUCH ITEMS SHALL BE BROKEN INTO SUFFICIENTLY SMALL PIECES (IF NECESSARY) TO BE ACCEPTABLE FOR TRANSPORT AND DISPOSED OF UTH THE SOILS. BELOW-GRADE COMPONENTS SHALL BE REPLACED AS PART OF SITE RESTORATION ACTIVITIES.
- 11. THE CONTRACTOR SHALL PROVIDE A WATER TRUCK AND/OR APPROPRIATE EQUIPMENT FOR DUST SUPPRESSION WITHIN SOIL EXCAVATION, HAUL ROADS, AND LOADING AREAS. THESE AREAS SHALL BE WATERED BASED ON VISUAL OBSERVATIONS, THE RESULTS OF AIR MONITORING ACTIVITIES, AND/OR DIRECTION BY GE OR GE'S REPRESENTATIVE.
- 12. ON A DAILY BASIS, THE CONTRACTOR SHALL ENSURE PERIMETER AIR MONITORING (TO BE PERFORMED BY OTHERS) IS BEING PERFORMED PRIOR TO THE START OF EXCAVATION OR OTHER EXISTING SOIL HANDLING ACTIVITES.
- 13. THE HORIZONTAL LIMITS OF EXCAVATION ACTIVITIES SHALL BE PHYSICALLY DELINEATED IN THE FIELD BY THE CONTRACTOR. WITHIN THESE LIMITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXECUTING AND VERIFYING THE SPECIFIED DEPTH OF EXCAVATION.

30													
	NOT TO								Professional Engineer's Name JAMES M. NUSS Professional Engineer's No.		G ARCADIS	GENERAL ELECTRIC COMPANY • PITTS NEWELL STREET AR	
	SCALE							_	State	Date Signed	Droject Mar		GENERAL NOTES
THIS BAR REPRESENTS ONE	1	1	USE TO VERIFY	No.	Date	Revisions	Ву	Ckd	oluto	Date digited	CRA		
INCH ON THE ORIGINAL DRAWING:			REPRODUCTION SCALE	THIS DF NO	RAWING IS TH T BE REPROE	E PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK A JUCED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRIT PERMISSION OF SAME.	AND MAY	ſ	Designed by MJB	Drawn by DMW	Checked by CRA	ARCADIS U.S., INC.	TECHNICAL DRAWIN



NOTES:

- 1. UNTIL SUCH TIME THAT ALL EXCAVATION ACTIVITIES HAVE BEEN COMPLETED AND BACKFILL MATERIAL HAS BEEN PLACED IN ALL AREAS, SILT ACCUMULATIONS ADJACENT TO EROSION CONTROL MEASURES SHALL BE IMMEDIATELY REMOVED AND DISPOSED WITH SOILS SUBJECT TO TRANSPORT AND DISPOSAL.
- 2. THE CONTRACTOR SHALL INSPECT INSTALLATION AND REMOVE SILT AND OTHER DEBRIS AS IT ACCUMULATES.
- 3. HAY BALES/SILT FENCE WILL BE REMOVED BY THE CONTRACTOR WHEN REQUESTED BY GE OR GE'S REPRESENTATIVE. CONTRACTOR SHALL RESTORE SURFACE AREA.
- 4. THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF THE HAY BALES/SILT FENCING UNTIL RESTORATION ACTIVITIES ARE COMPLETE.

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HAY BALE/SILT FENCE

- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE TRANSPORTATION OF ALL EXCAVATED/REMOVED MATERIALS TO THE HILL 78 OPCA OR AN ALTERNATE, GE APPROVED OFF-SITE DISPOSAL FACILITY.
- 15. CONTRACTOR SHALL INSTALL AN INTERIM COVER (E.G., POLYETHYLENE SHEETING) OVER WORK AREAS WHERE EXCAVATION ACTIVITIES HAVE BEEN INITIATED BUT ARE NOT YET COMPLETED. THE INTERIM COVER SHALL BE PROPERLY ANCHORED TO RESIST WIND FORCES AND PREVENT STORMWATER FROM ENTERING SUCH WORK AREAS.
- 18. WITHIN THE LIMITS OF EXCAVATION, THE CONTRACTOR SHALL RESTORE ALL PREVIOUSLY VEGETATED AREAS BY PLACING TOPSOIL TO APPROXIMATELY PRE-REMOVAL GRADE. OTHER SURFACE FEATURES SHALL BE REPLACED OR RESTORED AS INDICATED.

FIELD, MASSACHUSETTS EA II RAA	ARCADIS Project No. B0030193.0000.00009		
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