PCB REMEDIATION COMPLETION REPORT

University of Massachusetts

Webster House

Amherst, Massachusetts

1.866.702.6371
35 New England Business Center
Andover, MA

224189.00
University of Massachusetts

January 2012

TABLE OF CONTENTS

SECTION **PAGE NO.**

1. INTRODUCTION 1-1

1.1 Site Description 1-1
1.2 Site Background / Conceptual Site Model 1-1
1.3 Submittals and Project Timeline 1-1
1.4 Project Team 1-2

2. REMEDY IMPLEMENTATION 2-1

2.1 Site Preparation and Controls 2-1
2.2 Sampling and Analytical Methods 2-2
2.3 First Floor Storefront Windows and Doors 2-2
2.3.1 Caulking and Window Removal 2-2
2.3.2 Stucco Ceiling Verification Sample Collection and Removal 2-2
2.3.3 Building Materials Verification Sampling 2-3
2.3.4 Encapsulation and Verification Wipe Sample Collection 2-5
2.4 Elevator Hall Windows (Type D) 2-5
2.4.1 Caulking and Window Removal 2-5
2.4.2 Building Material Verification Sampling 2-6
2.4.3 Encapsulation and Verification Wipe Sampling 2-6
2.5 Waste Storage, Disposal, and Equipment Decontamination 2-7
2.6 Restoration 2-8
2.7 Data Usability Assessment 2-8

3. DEED RESTRICTION 3-1

4. LONG TERM MONITORING AND MAINTENANCE OF ENCAPSULATED SURFACES 4-1

5. SUMMARY AND CONCLUSIONS 5-1

LIST OF TABLES

TABLE

Table 2-1: Summary of Verification Bulk Sample Results

Table 2-2: Summary of Verification Wipe Sample Results

LIST OF FIGURES

FIGURE

Figure 1-1: Site Locus

APPENDICES

Appendix A: EPA Approval

Appendix B: Dust Monitoring Logs

Appendix C: Analytical Laboratory Reports and Data Validation Summaries

Appendix D: Verification Sample Locations

Appendix E: Waste Disposal Documentation

Appendix F: Monitoring and Maintenance Implementation Plan

1. INTRODUCTION

This Polychlorinated Biphenyl (PCB) Remediation Completion Report has been prepared by Woodard & Curran (W&C) on behalf of the University of Massachusetts (UMass) to comply with the requirements set forth in the U.S. Environmental Protection Agency's (EPA) July 05, 2011 PCB Decontamination and Disposal Approval under 40 CFR 761.61(c) and 761.79(h) (the Approval) for the subject work. This Approval is provided in Appendix A to this Report.

This Report documents PCB remediation activities conducted at the Webster House located within the Orchard Hill Residential Area on the UMass campus in Amherst, Massachusetts. The PCB remediation activities were conducted in accordance with the Notification* and EPA's July 5, 2011 Approval.

1.1 SITE DESCRIPTION

The Webster House, originally constructed in 1965, is a residential dormitory for undergraduate students. The building is seven stories high with dormitories on the second through seventh floors, and common areas and meeting rooms on the first floor.

The Webster House is located within the Orchard Hill Residential area and is surrounded by other dormitory buildings, parking areas and open areas. Surrounding ground surfaces are generally flat or slightly sloped away from the building and are either covered with asphalt pavement, concrete or landscaped areas. A Site Locus Map is provided as Figure 1-1.

1.2 SITE BACKGROUND / CONCEPTUAL SITE MODEL

The Webster House was constructed during a time period when PCBs were used in certain building materials (i.e., caulking). In preparation for the window and door replacement project, a materials survey was conducted to check for the presence of various hazardous materials that may be encountered during the renovations. This included inspection and sampling of suspect materials for PCBs.

Analytical results indicated that certain caulking materials contained PCBs at concentrations greater than 50 parts per million (ppm) with concentrations ranging up to 160,000 ppm. Of note, certain caulking materials were also found to contain asbestos. Adjacent building materials were sampled to determine whether PCBs had migrated from the caulking into these adjacent materials, and the characterization data confirmed that detectable concentrations of PCBs were present in certain adjacent materials at regulated concentrations. After completing the characterization of PCB-containing materials at the Site, these results were used to develop a remedial approach that was incorporated into the overall renovation project plans as presented in the PCB Remediation Plan submitted in March 2011.

1.3 SUBMITTALS AND PROJECT TIMELINE

The following list provides a summary of the major activities conducted and document submittals prepared as part of the remediation activities. It should be noted that characterization sampling was conducted throughout the program in support of these submittals.

- Initial Site Inspection and Characterization Sample Collection – Fall 2010/Winter 2011;

* Information was prepared by W&C on behalf of UMass to satisfy the requirements under 40 CFR 761.61(c) and 761.79(h). Information was submitted on March 31, 2011 (PCB Remediation Plan) and June 10, 2011 (Response to Comments). These submittals together form the "Notification."

- PCB Remediation Plan Submitted to EPA and MassDEP – March 31, 2011;
- Response to Comments Submitted – June 10, 2011;
- PCB Decontamination and Disposal Approval under 40 CFR 761.61(c) and 761.79(h) issued by EPA – July 05, 2011;
- PCB Remediation Activities Commenced – July 18, 2011;
- Window Replacement Activities Completed – August 29, 2011; and
- Visual Inspection of encapsulated surfaces and Final Verification Testing – November 2011.

1.4 PROJECT TEAM

The remediation project team consisted of the following parties:

- University of Massachusetts Amherst – Owner;
- Gale Associates Inc. – Project Manager for UMass;
- GVW Incorporated – General Contractor;
- A & J Demo – Remediation Contractor (asbestos and PCB removal); and
- Woodard & Curran – PCB Remediation Consultant.

2. REMEDY IMPLEMENTATION

This section describes the PCB cleanup and disposal activities conducted at the Site under the Approval, consistent with the requirements of 40 CFR 761.61 (c) and 761.69(h). Remediation activities began in July 2011 and were concluded in November 2011.

The remedial approach consisted of the following:

- Removal and off-site disposal of ≥ 50 ppm PCB containing caulking and storefront window and door frames in direct contact with the caulking as ≥ 50 ppm PCB waste;
- Removal and off-site disposal of ≥ 50 ppm PCB containing interior caulking and elevator hall windows as ≥ 50 ppm PCB waste; and
- Encapsulation of building materials scheduled to remain in place containing PCBs at concentrations above the high occupancy clean up level of 1 ppm.

Certain caulking and glazing sealants within UMass' window renovation project scope were identified by UMass as Excluded PCB Product as documented in the Notification. These caulking and glazing sealants were removed with the window frames and components for off-site disposal as asbestos containing material (ACM) with < 50 ppm PCBs using asbestos abatement procedures for containment and controls. Materials were shipped off-site for disposal to the Minerva disposal facility in Waynesburg, Ohio as ACM with < 50 ppm PCBs. Given that these materials and activities were not covered under the Approval, further descriptions are not provided in this Completion Report.

A summary of activities performed with regards to ≥ 50 ppm PCB containing caulking, including site preparations and controls, PCB impacted material removals, inspections and verification sample collection, and material disposal is presented in the following sections.

2.1 SITE PREPARATION AND CONTROLS

Prior to initiating the remediation activities, site preparations and controls were implemented as described in the PCB Remediation Plan. These preparations included the development of a Health & Safety Plan, Contractor Work Plan (reviewed by EPA – August 1, 2011), and securing access to the work areas through signage and temporary fencing. During remediation activities the dormitory was vacant.

Removal of ≥ 50 ppm PCB containing caulking and windows was conducted within polyethylene containments constructed on the ground surfaces or on the scaffolding for the elevator lobby windows on the upper level floors. Water misting was the primary means of dust control used during the project. Additional polyethylene sheeting was placed on the ground surfaces below the work areas as final control for dust and debris. Air monitoring was conducted during removal of the soffit and during removal of residual caulking materials prior to application of the epoxy coating in accordance with the air monitoring plan included in Appendix D of the PCB Remediation Plan. A direct reading particulate meter (TSI Dust Trak Respirable Particulate Meter) was used to monitor total dust concentrations at a background location and at multiple stations surrounding the work areas at a frequency of every two hours during these work activities. The exact locations of the stations varied based on the specific location of removal activities. Results of the air monitoring indicated that dust concentrations did not exceed the project action limit during the work. A copy of the dust monitoring logs is provided in Appendix B.

2.2 SAMPLING AND ANALYTICAL METHODS

Verification samples collected in support of the remediation activities described herein were collected in accordance with generally accepted procedures for environmental sampling. Masonry samples were collected consistent with the EPA Region I Standard Operating Procedure for Sampling Porous Surfaces for PCBs (May 2011). Surface wipe samples were collected using hexane-saturated gauze wipes in accordance with the standard wipe test method under 40 CFR 761.123.

Samples were transferred on ice to Con-Test Analytical Laboratory of East Longmeadow, Massachusetts under standard chain of custody procedures. Samples were extracted using USEPA Method 3540C (Soxhlet extraction) and analyzed for PCBs using USEPA Method 8082. Electronic versions of the laboratory analytical packages for the data presented in this section are provided in Appendix C.

2.3 FIRST FLOOR STOREFRONT WINDOWS AND DOORS

Storefront windows and doors on the first floor locations (including ribbon type windows) were identified as containing ≥ 50 ppm PCB caulking on exterior joints. PCB concentrations ranged from 25.6 to 326 ppm. Interior caulking was assumed to contain PCBs at concentrations ≥ 50 ppm. Interior and exterior glazing sealants contained PCBs at concentrations > 1 and < 50 ppm and were identified by UMass as Excluded PCB Products. All caulking and glazing sealants were identified as ACM. A summary of the removal and verification program is provided below.

Typical Storefront Windows

2.3.1 Caulking and Window Removal

Following the construction of polyethylene containment and the establishment of site controls as described above, window caulking and frames in direct contact with the caulking were removed using manual methods (hand tools, pry bars, etc.) for off-site disposal as ≥ 50 ppm PCB waste and ACM. All remaining portions of the windows and doors (interior frames, glass, etc.) not in direct contact with the caulking were segregated in the containment using hand tools and other physical methods for off-site disposal < 50 ppm PCB waste and ACM.

After removal of the caulking and window components, adjacent materials in former direct contact with the caulking were addressed as proposed in the Notification. A stucco ceiling overhang was removed for off-site disposal as described in Section 2.3.2 below, and adjacent building materials scheduled to remain in place were subject to verification sampling and/or encapsulation as described in Section 2.3.3.

2.3.2 Stucco Ceiling Verification Sample Collection and Removal

In accordance with Section 3.3.1 of the PCB Remediation Plan, verification samples were collected from the stucco ceiling materials adjacent to the first floor storefront windows and doors at a frequency of one sample per 50 linear feet (l.f.) of caulked joints at a distance of five inches from the caulked joints. Analytical results indicated that PCBs were non-detect in three samples (maximum reporting limit of 0.10 ppm) and present at a concentration of 0.17 ppm in the fourth sample. Analytical results are included on Table 2-1.

Based on these results, stucco ceiling materials within five inches of the caulked joints were removed for off-site disposal as ≥ 50 ppm PCB wastes and ACM. The stucco ceiling was removed through saw cutting in full containment with negative pressure controls. The rotary saw was equipped with HEPA filtration and wet techniques were utilized to minimize dust generation. The remaining portions of the stucco ceiling (beyond five inches from the caulked joint) were removed for off-site disposal as ACM.

Following removal of the stucco ceiling, visual inspection confirmed the complete removal of stucco materials and the remaining building materials were inspected to determine if verification samples would be required. The inspection revealed that the stucco ceiling was suspended approximately eight inches below metal framing by wire. Based on the absence of a direct contact pathway from the stucco ceiling to the materials above, no verification samples were collected.

2.3.3 Building Materials Verification Sampling

Following removal of the caulking, windows, and caulk residue, verification samples were collected from materials in direct contact with the former caulked joint to determine if PCB impacts > 1 ppm were present in the remaining building materials and establish the requirements for long term monitoring (i.e., materials identified as containing PCBs at concentrations > 1 ppm would be included in the long term monitoring program as described in Section 4). Verification samples were also collected at varying distances away from the caulked joints to verify the required extent of encapsulation if results from the direct contact verification samples indicated that PCBs were present at concentrations > 1 ppm. Due to the overall project schedule, these samples were collected at the same time as the direct contact samples and submitted for laboratory analysis.

Verification samples were collected at a frequency of one sample set per 50 linear feet of caulked joint from the concrete foundation below the storefront windows (four sample locations), slate along horizontal ribbon window joints (eight sample locations), slate adjacent to vertical window joints (five sample locations), and concrete ceiling above first floor windows and doors (nine sample locations) for a total of 26 sets of samples or 52 individual verification samples. Where possible, direct contact and adjacent material samples were co-located (i.e., collected at the same point along the joints). Analytical results are summarized on Table 2-1, and are depicted graphically on the Plan Drawings provided in Appendix D.

Overall, only one of the 52 samples detected total PCBs at a concentration > 1 ppm. A summary of analytical results follows:

- Concrete Foundation – Samples were collected from concrete materials in former direct contact with the caulked joint and at a distance of 4-5 inches below the upper horizontal face from four locations along the lower horizontal caulked joints of the storefront windows. Analytical results were as follows:
    - Former Direct Contact – Analytical results indicated that PCBs were non-detect (two samples with reporting limits of < 0.10 ppm) or < 1 ppm (two samples with reported concentrations of 0.62 ppm each); and
    - Away From Joint – Analytical results indicated that PCBs were non-detect (two samples with reporting limits of < 0.091 and < 0.095 ppm) or < 1 ppm (two samples with reported concentrations of 0.21 and 0.51 ppm) in materials 4-5 inches below the upper horizontal face of the concrete foundation.
- Horizontal Slate Ribbon Window Joints – Samples were collected from slate materials formerly in direct contact with the caulked joints and at a distance of 0-1 inches below the upper horizontal face of the slate

facade at eight sample locations along the lower horizontal joints of the ribbon windows. Analytical results were as follows:

- Former Direct Contact – Analytical results indicated that PCBs were non-detect (three samples with reporting limits of < 0.10 ppm or lower) or < 1 ppm (five samples with an average PCB concentration of approximately 0.37 ppm); and

- Away From Joint – Analytical results indicated that PCBs were non-detect (six samples with reporting limits of < 0.10 ppm or lower) or < 1 ppm (two samples with reported concentrations of 0.14 ppm each) in materials 0-1 inches below the upper horizontal face of the slate facade.

- Vertical Slate Window Joints – Samples were collected from slate materials formerly in direct contact with the caulked joints and at a distance of 2-3 inches from the caulked joints at five sample locations along vertical storefront window joints of the storefront windows. Analytical results were as follows:

  - Former Direct Contact – Analytical results indicated that PCBs were non-detect (three samples with reporting limits of < 0.10 ppm or lower) or < 1 ppm (two samples with reported concentrations of 0.12 ppm each); and

  - Away From Joint – Analytical results indicated that PCBs were non-detect (four samples with reporting limits of < 0.10 ppm or lower) or < 1 ppm (one sample with a reported concentration of 0.16 ppm) in materials 2-3 inches from the caulked joints.

- Concrete Ceiling – Samples were collected from concrete ceiling materials formerly in direct contact with the caulked joints and at a distance of 8-9 inches from the caulked joints at nine sample locations along the upper horizontal ribbon and storefront window joints. Analytical results were as follows:

  - Former Direct Contact – Analytical results indicated that PCBs were non-detect (two samples with reporting limits of < 0.10 ppm) or < 1 ppm (six samples with an average PCB concentration of approximately 0.32 ppm) and present at a concentration of 4.3 ppm in one sample collected from the northwest elevation; and

  - Away From Joint –Analytical results indicated that PCBs were non-detect in all nine samples collected (reporting limits of < 0.10 ppm or lower).

Analytical results from the verification samples collected from materials formerly in direct contact with the caulked joints were evaluated as follows:

- PCBs > 1 ppm – building materials formerly in direct contact with the caulked joint will be managed in-place through encapsulation (liquid coating) and the installation of sheet metal cladding as a second barrier; or

- PCBs ≤ 1 ppm – no additional remedial activities will be conducted for the building materials.

As summarized above, analytical results from all but one of the verification samples collected indicated that PCB impacts were ≤ 1 ppm in building materials formerly in direct contact with the caulked joints. One sample collected from the concrete ceiling materials on the northwest building elevation contained PCBs at a concentration of 4.3 ppm. The result from the sample collected adjacent to this sample at a distance of 8-9 inches from the caulked joint indicated that PCBs were non-detect. No other building materials along the first floor storefront or ribbon windows were identified as containing PCBs > 1 ppm.

Based on these results, concrete ceiling materials along 100 l.f. of former caulked joints on the northwest building elevation will be included in the long term monitoring program (materials from the verification sample location in either direction to the next clean sample point). Additional information on encapsulation activities is presented in Section 2.3.4 and in the long term monitoring program in Section 4.

2.3.4 Encapsulation and Verification Wipe Sample Collection

In accordance with Section 3.3.3 of the PCB Remediation Plan, building materials identified as containing PCBs at concentrations > 1 ppm were to be managed in-place through the application of two coats of Sikagard 62 liquid epoxy coating followed by the installation of sheet metal cladding (referred to as the barrier system).

Due to the overall project schedule, following removal of the windows and the collection of the building material verification samples, the epoxy coating was immediately applied to allow for the installation of the replacement windows and the sheet metal cladding as quickly as possible (i.e., two coats of epoxy coating were installed on all building materials formerly in direct contact with the caulked joints and to the distances specified in the PCB remediation plan without consideration to the results of the verification sampling).

Following application of the second coat, the epoxy was allowed to dry overnight and verification wipe samples were collected at a sample frequency of one sample per 50 l.f. of caulked joint. Following collection of the verification wipe samples, the replacement windows and sheet metal cladding were installed in accordance with the overall project schedule. Results of the verification wipe samples indicated that PCBs were non-detect (maximum reporting limit of 0.20 µg/100cm^2) in all 26 samples collected. Analytical results from the wipe samples are presented on Table 2-2, and are depicted graphically on plan drawings provided in Appendix D.

As indicated above, only a 100-foot section of the concrete ceiling on the west and northwest building elevation will be included in the long term monitoring program based on the bulk verification results.

2.4 ELEVATOR HALL WINDOWS (TYPE D)

The twelve elevator hall windows were identified as containing ≥ 50 ppm PCB caulking on interior metal frame to masonry joints and on vertical metal to metal frame joints joints (up to 160,000 ppm total PCBs). Exterior caulking and glazing sealants contained PCBs at concentrations > 1 and < 50 ppm and were identified by UMass as Excluded PCB Products. All caulking and glazing sealants were identified as ACM. A summary of the removal and verification program is provided below.

Typical Elevator Hall Window

2.4.1 Caulking and Window Removal

Following the construction of polyethylene containments and the establishment of site controls as described above, window caulking and glazing sealants and frames and components (including glass) were removed using manual methods (hand tools, pry bars, etc.) for off-site disposal as ≥ 50 ppm PCB waste and ACM. No materials were segregated for disposal as PCB waste < 50 ppm due to the construction of the windows and the limited volume associated with the elevator hall windows as compared to the additional labor required for segregation.

After removal of the caulking and window components, adjacent materials in former direct contact with the caulking were addressed as proposed in the Notification. Adjacent building materials scheduled to remain in place were subject to verification sampling and/or encapsulation as described below.

2.4.2 Building Material Verification Sampling

Following removal of the caulking, windows, and caulk residue, one verification sample was collected on each floor from concrete masonry unit (CMU) block materials in direct contact with the former caulked joint to determine if PCBs > 1 ppm were present in the remaining building materials and establish the requirements for long term monitoring (i.e., materials identified as containing PCBs at concentrations > 1 ppm would be included in the long term monitoring program as described in Section 4). Samples were collected from randomly selected locations on each floor by first randomly selecting the individual window and then the specific location along the joint on that window. Verification samples were also collected at a distance of 2-3 inches from the caulked joints to verify the required extent of encapsulation if results from the direct contact verification samples indicated that PCBs were present at concentrations > 1 ppm. Due to the overall project schedule, these samples were collected at the same time as the direct contact samples and submitted for laboratory analysis. Analytical results are summarized on Table 2-1.

A summary of analytical results follows:

- Former Direct Contact – Analytical results from the verification samples collected from materials formerly in direct contact with the caulked joint indicated that PCBs were non-detect in four of the six samples collected; however, the reporting limits for two of the four samples were above 1 ppm (< 4.8 and < 5.0 ppm) due to sample matrix interferences. Results from the remaining two samples indicated that PCBs were present at concentrations of 1.9 and 7.2 ppm.

- Away From Joint – Analytical results from the verification samples collected from materials at a distance of 2-3 inches from the caulked joints indicated that PCBs were present at concentrations > 1 ppm in five of the six samples collected with total PCB concentrations ranging from 0.49 to 4.9 ppm.

Based on these results, the project team decided to extend the area of encapsulation to include the entire interior CMU block wall to the first 90-degree angle. This decision was made based on the overall project schedule which would not support multiple rounds of analytical testing to determine the extent of PCBs > 1 ppm. Verification samples were collected from block materials immediately past the first 90-degree corner from the caulked joints, which corresponded to a distance of either 6.5 or 18 inches from the caulked joints, depending on the construction of the windows. Analytical results from these verification samples indicated that PCBs were < 1 ppm in all six of the samples collected with an average PCB concentration of approximately 0.55 ppm. Based on these results, the lateral extent of CMU requiring encapsulation had been delineated to the 1 ppm cleanup level.

2.4.3 Encapsulation and Verification Wipe Sampling

In accordance with Section 3.3.3 of the PCB Remediation Plan, building materials formerly in direct contact with the caulked joints, across the entire window opening (the sill, header, and jambs) and to a minimum distance of three inches from the caulked joints on the interior CMU block wall (identified during the initial characterization sampling as containing PCBs at concentrations > 1 ppm) were to be managed in-place through the application of two coats of Sikagard 62 liquid epoxy coating followed by the installation of sheet metal cladding (collectively referred to as the barrier system).

Based on the overall project schedule, immediately following removal of the windows and the collection of the bulk verification samples, the epoxy coating was applied as described above. Following application of the second coat,

the epoxy was allowed to dry overnight and verification wipe samples were collected at a sample frequency of one sample per floor at locations randomly selected as described above. Following collection of the verification wipe samples, the replacement windows and sheet metal cladding were installed in accordance with the overall project schedule. Results of the epoxy verification wipe samples indicated that PCBs were non-detect (reporting limits of < 0.20 µg/100cm^2) in all six samples collected. Analytical results from the wipe samples are provided on Table 2-2.

Based on the results of the bulk verification sampling described above, CMU block materials to the first 90-degree angle required in-place management based on PCB concentrations > 1 ppm at the elevator lobby windows of all six floors. Based on the overall scope of the project (i.e., epoxy encapsulation and pre-formed sheet metal cladding installation to a distance of three inches from the caulked joints and the materials being painted CMU block wall), it was determined by the project team to encapsulate the impacted block wall beyond the extent of the epoxy and sheet metal cladding with two coats of Sikagard 550W acrylic coating to the first 90-degree angle. This corresponded to a distance of 6.5 inches along the vertical joints with the exception of the north side of the eastern window, which had a distance of 18" to the first 90-degree angle. Above the windows the concrete ceiling was encountered at a distance of 15 inches above the joint.

Following application of the Sikagard 550W, verification wipe samples were collected from the surface of the interior CMU blocks at a sample frequency of one wipe sample per floor. Wipe samples were evenly divided between the windows on the east and west sides of the lobby with one wipe sample collected from materials adjacent to each of the three joints (i.e., one wipe collected above the upper horizontal joints and adjacent to each of the left and right vertical joints on each window). Along the specific joint, the location of the wipe sample was selected using a random number generator to determine the location along the joint and then the distance from the joint at which the wipe was centered. Analytical results of the interior CMU verification samples indicated that PCBs were non-detect in the six samples collected (< 0.20 µg/100cm^2). A summary of the analytical results from the interior CMU block wipe samples are provided on Table 2-2.

2.5 WASTE STORAGE, DISPOSAL, AND EQUIPMENT DECONTAMINATION

Waste storage and disposal activities were completed in accordance with the procedures described in the PCB Remediation Plan dated March 2011. Caulking from the first floor storefront windows as well as window and door frames and components coated or in direct contact with the caulking were managed as a single waste stream and designated as ≥ 50 ppm PCB waste. All caulking and sealants from the elevator hall windows and the window frames and components (including glass) were managed as a single waste stream and designated as a ≥ 50 ppm PCB waste. Remaining portions of the first floor storefront windows (including glass and other sealants) were segregated and managed as a single waste stream and designated for off-site disposal as a < 50 ppm PCB material.

Following use, non-disposable equipment and tools were decontaminated using a double wipe with methanol soaked rags following gross removal of any dust or debris. Following gross decontamination, all PCB contaminated materials (poly-sheeting, PPE, disposable tools and equipment, etc.) were managed in accordance with 40 CFR 761.65 and marked in accordance with 40 CFR 761.40 for disposal as < 50 ppm PCB waste. All waste materials were also managed as ACM for disposal.

Wastes generated during the project were collected in secured, lined and covered waste containers (roll-off containers or box trailers) in accordance 40 CFR 761.65. These containers were properly labeled and marked in accordance with 40 CFR 761.40. At the conclusion of the project waste materials were transported off-site under manifest for disposal as follows:

- ≥ 50 ppm PCB waste was transported to Environmental Quality's Wayne Disposal Landfill in Belleville, Michigan. A total of 5.6 tons of materials were shipped off-site for disposal as ≥ 50 ppm PCB waste and ACM; and

- Poly sheeting, decontamination materials, PPE, and disposable tools and equipment were transported to the Minerva disposal facility in Waynesburg, Ohio for disposal as ACM with < 50 ppm PCBs. Caulking considered excluded PCB products and associated window frames and components were transported in the same waste stream for disposal as ACM with < 50 ppm PCBs.

Copies of all ≥ 50 ppm PCB waste shipment records, including manifests and certificates of disposal, are provided in Appendix E.

2.6 RESTORATION

After completing the PCB remediation activities and verifying that the cleanup levels have been met, new windows were installed and the building renovation was completed according to the architect's plans for the overall building renovation project.

2.7 DATA USABILITY ASSESSMENT

This data quality and data usability assessment has been conducted to review the 112 primary samples collected in support of the remediation and verification activities. Data validation and review was conducted by a third-party validator, Data Check, Inc. of New Durham, New Hampshire. This review included a check of field documentation including sample collection and preservation methods, a check of the laboratory data and documentation, a review of the internal laboratory QA/QC procedures and results including surrogate recoveries, blank results, matrix spike (MS) and matrix spike duplicate (MSD) results, laboratory control standard (LCS) and laboratory control standard duplicate (LCSD) results, an evaluation of sample holding times, and field duplicate results. Data Check's data validation summaries are provided in Appendix C.

A summary of the data usability assessment for the data is presented below:

- All samples were extracted by USEPA Method 3540C (Soxhlet Extraction) and analyzed for PCBs by USEPA Method 8082.

- Some samples were analyzed at dilutions due to the concentration of PCBs present in the samples and/or due to sample matrix. Elevated quantitation limits are reported in these samples as a result of the dilutions performed.

- Field duplicate samples were collected at a frequency of one duplicate sample per twenty primary samples during the sampling events. A total of 5 duplicate samples were collected to analyze the precision of the verification sample results. Relative percent differences (RPDs) between the primary and associated duplicate samples were within acceptance criteria (< 50%) with one exception. Results of the primary samples associated with these duplicate samples were qualified J and/or UJ based on this evaluation.

- Laboratory duplicate samples were analyzed on 14 of the samples submitted. The RPDs between laboratory duplicate samples and primary samples were compared to the acceptance criteria (≤ 40%). Analytical results from two samples were qualified based on RPDs outside the acceptance criteria.

- Accuracy of the analytical data was assessed by reviewing recoveries for MS, MSD, surrogates, LCS and LCSD. Recoveries were identified outside acceptable limits for surrogate results on three samples; however, due to results from only one column outside acceptance criteria, no qualifications were applied to the data. The surrogate recovery for tetrachloro-m-xylene was below the recovery acceptance limits and less than 10% in the duplicate sample WH-VWSD-059. Based on this result, non-detect results from the duplicate wipe sample were rejected (R); however, results from the corresponding primary sample were consistent with the duplicate results and were not qualified based on this result. No other qualifications were made to data as a result of the MS/MSD, surrogates, or LCS/LCSD sample results.

- All samples were received at the lab within the acceptable temperature range (<6 degree Celsius) except one sample delivery group. No data qualification was required for the wipe samples, in sample delivery group (11G0891) received at 23.3 degrees Celsius, as samples were submitted to the laboratory immediately following collection. Based on the stability of PCBs in the environment, the data was still considered usable for the intended purposes.

- Consistent procedures and laboratory analysis of the data were achieved. Sample containers were packed on ice and were accompanied by complete chain of custody forms from the time of sample collection until laboratory delivery. All samples were extracted and analyzed within the allowable holding time for the method. No analytes were detected in the laboratory method blank analyses, indicating that there were no interferences introduced at the laboratory during sample analysis. Field equipment blank samples, collected at a frequency of one per twenty primary samples during the sampling events, were non-detect for all samples and, as such, no qualifications were applied to the data.

- The data packages were reviewed to ensure that all sample and associated quality assurance results were available. Results of the completeness review indicated that all collected samples were analyzed and all quality control results were available to complete the data validation process.

Based on this review, the data adequately represents the materials tested, and the samples collected are considered usable for the purposes of characterizing PCB-affected media and verifying remediation efforts in accordance with 40 CFR Part 761.

3. DEED RESTRICTION

Pursuant to Condition 15 of EPA's July 5, 2011 Approval, a draft deed restriction will be submitted to EPA for review and approval prior to recordation. This restriction is currently being developed by UMass and will be submitted under a separate cover. The restriction will include a description of the extent and levels of PCBs remaining on the building following remediation, a description of the actions taken, a description of the use restrictions, and the long-term monitoring and maintenance requirements.

4. LONG TERM MONITORING AND MAINTENANCE OF ENCAPSULATED SURFACES

Pursuant to Condition 16 of EPA's July 05, 2011 Approval, a Monitoring and Maintenance Implementation Plan (MMIP) has been prepared to monitor the effectiveness of the remedy over time. The MMIP, which is being submitted concurrently with this Report and is included as Appendix F, includes the following:

- A description of the monitoring and maintenance activities that will be conducted, including inspection criteria, frequency, and routine maintenance activities;
- Sampling protocols, sampling frequency, analytical criteria and reporting requirements;
- A communications component, which details how the maintenance and monitoring results will be communicated to EPA and personnel responsible for the building use;
- A worker training component for maintenance workers or for persons that will be conducting work that could impact the building coatings/barriers; and
- A recordkeeping and reporting schedule to submit the results of the MMIP activities to EPA.

5. SUMMARY AND CONCLUSIONS

The PCB remediation activities described in this Report have been performed in accordance with the Notification and the conditions of EPA's July 05, 2011 Approval.

In summary, the work included the following activities:

- Removal and off-site disposal of PCB waste:
    - A total of 5.6 tons of bulk PCB waste (caulking, window and door frames and components, etc.) contained in one roll-off container and three cubic yard boxes was removed for off-site disposal as ≥ 50 ppm PCB wastes and ACM at Environmental Quality's Wayne Disposal Landfill in Belleville, Michigan;
    - Poly sheeting, decontamination materials, PPE, and disposable tools and equipment were transported to the Minerva disposal facility in Waynesburg, Ohio for disposal as ACM with < 50 ppm PCBs. Caulking considered excluded PCB products and associated window frames and components were transported in the same waste stream for disposal as ACM with < 50 ppm PCBs;
- Encapsulation of residual PCBs remaining in masonry surfaces of the building (at concentrations > 1 ppm) using a combination of liquid coatings and physical barriers; and
- A deed notice will be recorded identifying the encapsulated areas, and a long term monitoring and maintenance program will be implemented to assess and verify the effectiveness of the coatings / barriers over time.

With the exception of the monitoring and maintenance activities described in the MMIP and the recordation of the Deed Restriction, no further work is warranted to meet the conditions of the Approval.

In addition, Webster House is part of a residential dormitory complex referred to as the Orchard Hill Area. The buildings in this area were constructed in consecutive years following similar building plans. UMass has plans to conduct similar window and door replacement projects at two of the other buildings, the Grayson House and the Field House in 2012 and 2013. Currently, UMass is preparing a PCB Remediation Plan / Notification for the Grayson and Field Houses for subsequent submittal to EPA.

The proposed plan to address any impacted ground surfaces is to assess and remediate, if necessary, surfaces adjacent to the three buildings once the window replacement projects have been completed at the buildings. This will allow the remediation contractor access to the three buildings during the same mobilization and completion of the ground surfaces work surrounding the buildings as one removal project. A plan for remediation activities will be submitted as required following the assessment of ground surfaces.

Table 2-1
Summary of Verification Bulk Sample Results

Webster House
UMass - Amherst

Location	Side of Building	Sample Group	Sample Frequency	Sample ID	Distance from Joint (inches) [1]	Sample Date	Reporting Limit	Total PCBs (mg/kg)
Stucco Ceiling	NE	Adjacent to Joint	1 per 50 l.f.	WH-VBC-001	5	6/16/2011	0.095	<0.095
				WH-VBC-002	5		0.10	<0.10
				WH-VBC-003	5		0.091	0.17
				WH-VBC-004	5		0.10	<0.10
Concrete Foundation (along storefront windows)	NE	4-5" on vertical concrete face	1 per 50 l.f.	WH-VBC-006	4-5	6/20/2011	0.087	0.21
				WH-VBC-007	4-5		0.091	0.51
	SW			WH-VBC-012	4-5		0.095	<0.095
				WH-VBC-013	4-5		0.091	<0.091
	SW	on-joint	1 per 50 l.f.	WH-VBC-051	0	7/22/2011	0.10	<0.10
				WH-VBC-052	0		0.10	<0.10
	NE			WH-VBC-083	0	7/29/2011	0.1	0.62
				WH-VBC-084	0		0.095	0.62
Horizonal Slate Ribbon Window Joints	East	0-1" on vertical slate face	1 per 50 l.f.	WH-VBS-005	0-1	6/20/2011	0.10	0.14 J
	NW			WH-VBS-008	0-1		0.091	0.14 J
				WH-VBS-009	0-1		0.10	<0.10
				WH-VBS-010	0-1		0.091	<0.091
	West			WH-VBS-011	0-1		0.10	<0.10
	SE			WH-VBS-014	0-1		0.10	<0.10
				WH-VBS-015	0-1		0.091	<0.091
				WH-VBS-016	0-1		0.087	<0.087
	NW	on-joint	1 per 50 l.f.	WH-VBS-047	0	7/22/2011	0.10	<0.10
	NE			WH-VBS-048	0		0.10	0.51
				WH-VBS-049	0		0.10	0.16
	SW			WH-VBS-050	0		0.10	<0.10
				WH-VBS-053	0		0.091	0.90
	SE			WH-VBS-054	0		0.095	<0.095
				WH-VBS-055	0		0.095	0.099
	NW			WH-VBS-081	0	7/29/2011	0.1	0.16
Vertical Slate Window Joints	SW	2-3" on adjacent slate face	5 of 7 locations	WH-VBS-017	2-3	6/21/2011	0.10	<0.10
	NE			WH-VBS-018	2-3		0.095	<0.095
	SE			WH-VBS-021	2-3		0.091	<0.091
	NW			WH-VBS-022	2-3		0.095	0.16
	North			WH-VBS-023	2-3		0.091	<0.091
	SW	on-joint	1/50'	WH-VBS-069	0	7/26/2011	0.095	<0.095
	SE			WH-VBS-070	0		0.1	<0.10
	NE			WH-VBC-082	0	7/29/2011	0.1	0.12
				WH-VBC-085	0		0.1	0.12
				WH-VBC-086	0		0.1	<0.10
Concrete Ceiling	East	8-9" on adjacent horizontal concrete face	1 per 50 l.f.	WH-VBC-030	8-9	6/23/2011	0.095	<0.095
	North			WH-VBC-031	8-9		0.10	<0.10
				WH-VBC-032	8-9		0.087	<0.087
	West			WH-VBC-033	8-9		0.10	<0.10
	South			WH-VBC-034	8-9		0.095	<0.095
				WH-VBC-035	8-9		0.095	<0.095
				WH-VBC-036	8-9		0.091	<0.091
				WH-VBC-037	8-9		0.10	<0.10
				WH-VBC-038	8-9		0.091	<0.091
	NW	on-joint	1 per 50 l.f.	WH-VBC-061	0	7/26/2011	0.43	**4.3**
				WH-VBC-062	0		0.087	0.95
				WH-VBC-063	0		0.091	0.12
	SW			WH-VBC-064	0		0.095	0.12
				WH-VBC-065	0		0.1	<0.10
				WH-VBC-066	0		0.091	0.16
	SE			WH-VBC-067	0		0.1	0.19
				WH-VBC-068	0		0.087	0.36
	NE			WH-VBC-114	0	8/9/2011	0.1	<0.10

Table 2-1
Summary of Verification Bulk Sample Results

Webster House
UMass - Amherst

Location	Side of Building	Sample Group	Sample Frequency	Sample ID	Distance from Joint (inches) [1]	Sample Date	Reporting Limit	Total PCBs (mg/kg)
Elevator Lobby Window	S. 7th floor	2-3" on Adjacent concrete face	1 per floor	WH-VBC-024	2-3	6/22/2011	0.48	**4.9**
	S. 6th floor			WH-VBC-025	2-3		0.19	**2.1**
	N. 5th floor			WH-VBC-026	2-3		0.091	0.49
	S. 4th floor			WH-VBC-027	2-3		0.17	**1.6 J**
	N. 3rd floor			WH-VBC-028	2-3		0.091	**1.1**
	S. 2nd floor			WH-VBC-029	2-3		0.19	**1.4 J**
	S. 7th Floor	0" from caulked joint	1 per floor	WH-VBC-041	0	7/20/2011	4.8	<4.8
	N 6th Floor			WH-VBC-042	0		0.87	**1.9**
	S 5th Floor			WH-VBC-043	0		0.95	**7.2**
	N 4th Floor			WH-VBC-044	0		5.0	<5.0
	S 3rd Floor			WH-VBC-045	0		0.91	<0.91
	N 2nd Floor			WH-VBC-046	0		0.91	<0.91
	S. 7th Floor	next perpedicular wall surface on interior	1 per floor	WH-VBC-080	Variable[2]	7/29/2011	0.091	0.39
	N 6th Floor			WH-VBC-075			0.095	0.45
	S 5th Floor			WH-VBC-076			0.095	0.54
	N 4th Floor			WH-VBC-077			0.095	0.96
	S 3rd Floor			WH-VBC-078			0.1J1	0.62
	N 2nd Floor			WH-VBC-074			0.1	0.36

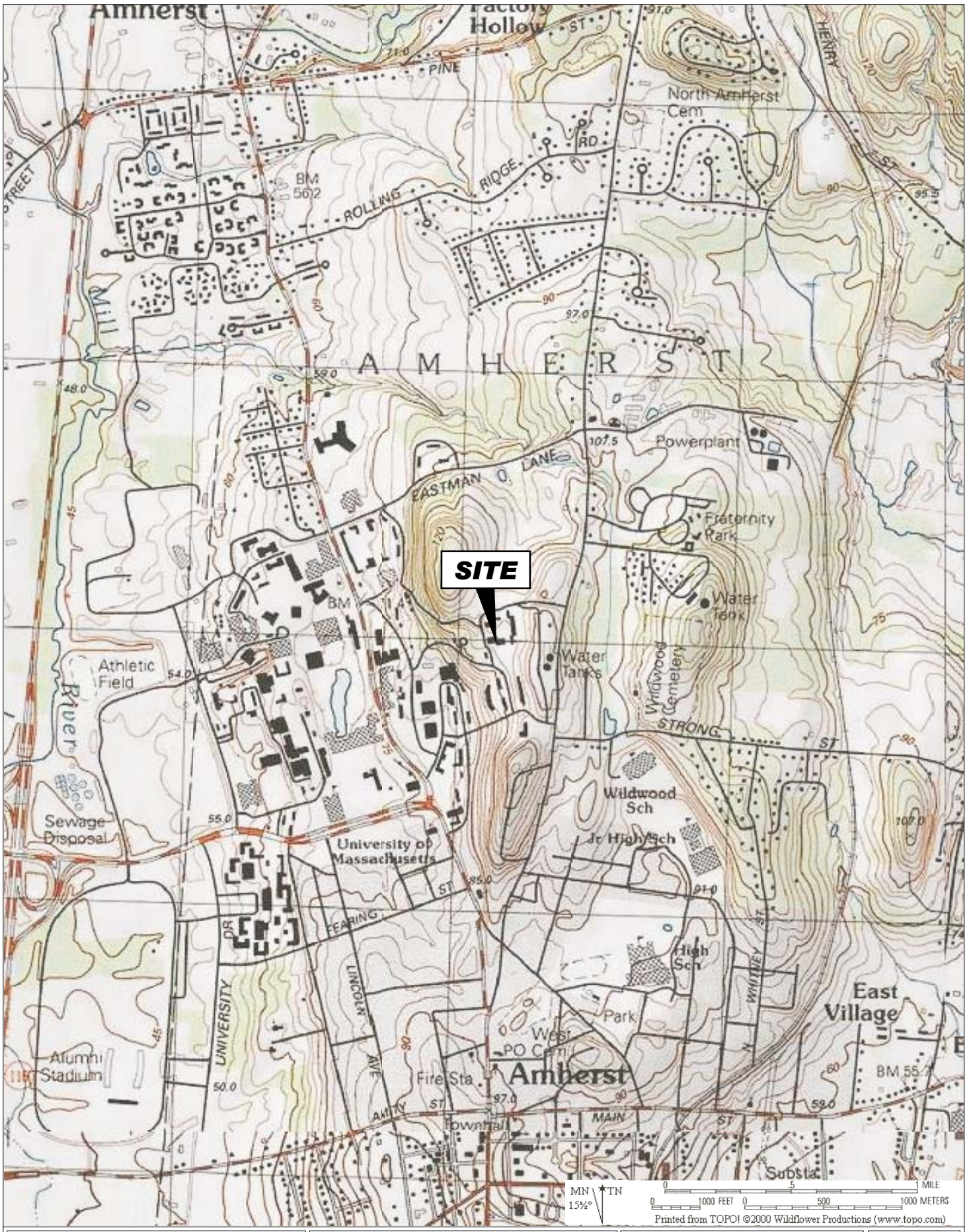
Notes:
l.f. = linear feet
J denotes analytical results are qualified as estimated based on results of data validation. Additional information is included in Appendix C.
All samples submitted for PCB analysis were extracted via USEPA 3540C (Soxhlet Extraction) and analyzed via USEPA method 8082.
Total PCBs included Aroclor 1248 and 1254. All other Aroclors reported at concentrations below the minimum laboratory reporting limit.
Shaded/Bold results indicate Total PCBs reported as > 1 ppm.
1. = For samples collected from the vertical face of the storefront window foundation or slate façade, distance indicated is from the upper horizontal face of the concrete foundation or slate as applicable.

Table 2-2
Summary of Verification Wipe Sample Results

Webster House
UMass - Amherst

Location	Side of Building	Sample Group	Sample Frequency	Sample ID	Sample Date	Total PCBs (mg/kg)
Storefront Window Foundation	NE	Wipe Sample	1 per 50 l.f.	WH-VWS-093	7/29/2011	<0.20
				WH-VWS-094		<0.20
	SW			WH-VWS-107	8/1/2011	<0.20
				WH-VWS-108		<0.20
Slate Base of Ribbon Windows	SE	Wipe Sample	1 per 50 l.f.	WH-VWS-088	7/29/2011	<0.20
	SW			WH-VWS-091		<0.20
				WH-VWS-097		<0.20
	NW			WH-VWS-101	8/1/2011	<0.20
				WH-VWS-103		<0.20
	NE			WH-VWS-104		<0.20
				WH-VWS-111		<0.20
	SE			WH-VWS-113		<0.20
Slate Adjacent to Vertical Joints (storefront windows)	SW	Wipe Sample	1 per 50 L.F.	WH-VWS-089	8/1/2011	<0.20
				WH-VWS-095	7/29/2011	<0.20
	NE			WH-VWS-105	8/1/2011	<0.20
				WH-VWS-106		<0.20
				WH-VWS-109		<0.20
Storefront Window Concrete Exterior Ceiling	SE	Wipe Sample	1 per 50 l.f.	WH-VWS-087	7/29/2011	<0.20
	SW			WH-VWS-090		<0.20
				WH-VWS-092		<0.20
				WH-VWS-096		<0.20
	NW			WH-VWS-098	8/1/2011	<0.20
				WH-VWS-100		<0.20
				WH-VWS-102		<0.20
	NE			WH-VWS-110		<0.20
	SE			WH-VWS-112		<0.20
Elevator Lobby Window	S. 7th Floor	Wipe Sample	1 per floor	WH-VWS-056	7/25/2011	<0.20
	N 6th Floor			WH-VWS-071	7/27/2011	<0.20
	S 5th Floor			WH-VWS-057	7/25/2011	<0.20
	N 4th Floor			WH-VWS-072	7/27/2011	<0.20
	S 3rd Floor			WH-VWS-058	7/25/2011	<0.20
	N 2nd Floor			WH-VWS-073	7/27/2011	<0.20
Interior CMU Block Within Elevator Lobby Areas	E 7th Floor	Wipe Sample	1 per floor	WH-VWC-115	11/7/2011	< 0.20
	W 6th Floor			WH-VWC-116		<0.20
	E 5th Floor			WH-VWC-117		<0.20
	W 4th Floor			WH-VWC-118		<0.20
	E 3rd Floor			WH-VWC-119		<0.20
	W 2nd Floor			WH-VWC-120		<0.20

Notes:
l.f. = linear feet
Verification wipe samples collected from surface of encapsulated materials in accordance with 40 CFR 761.123.
All samples submitted for PCB analysis extracted via USEPA 3540C (Soxhlet Extraction) and analyzed via USEPA method 8082.



WOODARD & CURRAN
35 New England Business Center
Andover, MA 01810
COMMITMENT & INTEGRITY DRIVE RESULTS

141 ORCHARD HILL DRIVE
AMHERST, MASSACHUSETTS

SCALE: AS NOTED	JOB NO.: 224189
DATE: DECEMBER 2011	FILE: Figure 1-1.cnv

SITE LOCATION

DES.BY: EVR
DR.BY: EVR
CK.BY: GJF

1-1

APPENDIX A: EPA APPROVAL

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

JUL 05 2011

Donald A. Robinson, Director
Environmental Health and Safety
Draper Hall
University of Massachusetts
40 Campus Center Way
Amherst, Massachusetts 01003-9244

Re: PCB Decontamination and Disposal Approval under 40 CFR § 761.61(c) and § 761.79(h)
Webster House
University of Massachusetts, Amherst, Massachusetts

Dear Mr. Robinson:

This is in response to the University of Massachusetts (UMass) Notification[1] for approval of a proposed plan to address PCB contamination at the building known as Webster House (the Site) located within the Orchard Hill Residential area on the UMass Campus, in Amherst, Massachusetts. The Site contains PCB-contaminated materials that exceed the allowable PCB levels under 40 CFR § 761.20(a) and § 761.62. Specifically, PCBs with greater than or equal to ($\geq$) 50 parts per million (ppm) have been found in the following:

- Exterior and interior caulk on the First Floor Storefront windows
- Interior caulk on the Elevator Hall windows

UMass has requested an approval under 40 CFR § 761.61(c) that includes the following activities:

- Remove and dispose of PCB caulk with $\geq$50 ppm in a TSCA approved or hazardous waste landfill;

[1] The notification was prepared by Woodard & Curran on behalf of the UMass to satisfy the requirements under 40 CFR § 761.61(c) and § 761.79(h). Information was submitted dated March 31, 2011 (PCB Remediation Plan) and June 10, 2011 (Response to Comments). These submittals shall be referred to as the "Notification".

- Remove *non-porous surfaces* (e.g., metal window frames), in direct contact with PCB caulk, and PCB-contaminated *porous surfaces* (i.e., stucco) to a minimum distance of 5 inches from the PCB caulk, and dispose of as a ≥50 ppm waste in a TSCA approved or hazardous waste landfill; and,

- Encapsulate PCB-contaminated *porous surfaces* (e.g., concrete and slate) with two coats of epoxy coating and continuous metal flashing.

In the event that the stucco overhang ceiling cannot be decontaminated to the PCB cleanup standard of less than or equal to (≤) 1 ppm, UMass is proposing to encapsulate these surfaces. If encapsulation is implemented, UMass will be required to include these encapsulated surfaces in the deed restriction and in the long-term monitoring and maintenance implementation plan (MMIP) (See Attachment 1, Conditions 15 and 16).

UMass has determined that glazing sealants and certain caulk, which have PCB concentrations at less than (<) 50 ppm are *Excluded PCB Products*. Under the PCB regulations, *Excluded PCB Products* are authorized for use and thus there is no requirement for removal of these building materials or for decontamination of surfaces that are in contact with these building materials. However, as indicated in the Notification, these materials have been determined to be asbestos containing materials (ACM) and as such, they will be removed and disposed of as an ACM/PCB waste.

Based on the EPA's review, the information provided in the Notification meets the requirements under § 761.62(a) and § 761.79(h) for abatement of PCB caulk and § 761.61(c) for encapsulation of the *porous surfaces*. EPA finds that the proposed encapsulation of PCB contaminated *porous surfaces* should effectively prevent direct exposure of these PCB contaminated *porous surfaces* to building users provided the physical barriers are maintained. As such, EPA may approve the encapsulation under § 761.61(c).

UMass may proceed with its project in accordance with 40 CFR § 761.61(c); § 761.62(a); § 761.79(h); its Notification; and, this Approval, subject to the conditions of Attachment 1. Under this Approval, EPA is reserving its rights to require additional investigation or mitigation measures should EPA determine that the encapsulation is not effective in eliminating exposure to PCBs.

Please note that UMass will be required to record a notation on the deed as required under § 761.61(a)(8) since PCBs at greater than (>) 1 ppm will remain on the Site.

Questions and correspondence regarding this Approval should be directed to:

Kimberly N. Tisa, PCB Coordinator (OSRR07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527

EPA shall not consider this project complete until it has received all submittals required under this Approval. Please be aware that upon EPA receipt and review of the submittals, EPA may request any additional information necessary to establish that the work has been completed in accordance with 40 CFR Part 761, the Notification, and this Approval.

Sincerely,

for James T. Owens III, Director
Office of Site Remediation & Restoration

cc Jeffrey Hamel, Woodard & Curran
MassDEP – Western Region
File

Attachment 1 – PCB Approval Conditions
Attachment 2 – *Standard Operating Procedure For Sampling Porous Surfaces For Polychlorinated Biphenyls (PCBs), Rev. 4, May 5, 2011*

ATTACHMENT 1:

PCB DECONTAMINATION AND DISPOSAL APPROVAL CONDITIONS
WEBSTER HOUSE (the Site)
UNIVERSITY OF MASSACHUSETTS
AMHERST, MASSACHUSETTS

GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to the *PCB bulk product waste* and the *PCB remediation waste* located at the Site and identified in the Notification.

2. The University of Massachusetts (UMass) shall conduct on-site activities in accordance with the conditions of this Approval and with the Notification.

3. In the event that the cleanup plan described in the Notification differs from the conditions specified in this Approval, the conditions of this Approval shall govern.

4. The terms and abbreviations used herein shall have the meanings as defined in 40 CFR § 761.3 unless otherwise defined within this Approval.

5. UMass must comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes generated under this Approval. In the event of a new spill during response actions, UMass shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.

6. UMass is responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time UMass has or receives information indicating that UMass or any other person has failed, or may have failed, to comply with any provision of this Approval, it must report the information to EPA in writing within 24 hours of having or receiving the information.

7. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by UMass are authorized to conduct the activities set forth in the Notification. UMass is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.

8. This Approval does not: 1) waive or compromise EPA's enforcement and regulatory authority; 2) release UMass from compliance with any applicable requirements of federal, state or local law; or 3) release UMass from liability for, or otherwise resolve any violations of federal, state or local law.

NOTIFICATION AND CERTIFICATION CONDITIONS

9. This Approval may be revoked if the EPA does not receive written notification from UMass of its acceptance of the conditions of this Approval within 10 business days of receipt.

10. UMass shall submit the following information for EPA review and/or approval:

    a. A certification signed by its selected abatement/demolition contractor, stating that the contractor(s) has read and understands the Notification, and agrees to abide by the conditions specified in this Approval;

    b. A contractor work plan, prepared and submitted by the selected demolition or abatement contractor(s) describing the containment and air monitoring that will be employed during abatement activities. This work plan should also include information on how and where wastes will be stored and disposed of, and on how field equipment will be decontaminated; and,

    c. A certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the extraction and analytical method requirements and quality assurance requirements specified in the Notification and in this Approval.

DECONTAMINATION AND DISPOSAL CONDITIONS

11. To the maximum extent practical, engineering controls, such as barriers, and removal techniques, such as the use of HEPA ventilated tools, shall be utilized during removal processes. In addition, to the maximum extent possible, disposable equipment and materials, including PPE, will be used to reduce the amount of decontamination necessary.

12. The decontamination standard for *porous surfaces* (i.e. stucco) shall be less than or equal to ($\leq$ 1 part per million (ppm) PCBs.

a. All post-cleanup verification sampling for *porous surfaces* shall be performed on a bulk basis (i.e., mg/kg) and reported on a dry weight analysis. Verification sampling for *porous surfaces* shall be conducted in accordance with the EPA Region 1 *Standard Operating Procedure For Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs) Revision 4, May 5, 2011*, at a maximum depth interval of 0.5 inches, and in accordance with the frequency specified in the Notification.

b. Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction/analytical method(s) is validated according to Subpart Q.

c. In the event that *porous surfaces* (i.e. stucco) cannot be decontaminated to the standard of ≤1 ppm, the encapsulation alternative, as described in the Notification shall be implemented. If this alternative is implemented, UMass will be required to include the encapsulated areas in the deed restriction and in the long-term monitoring and maintenance implementation plan (MMIP) (Conditions 15 and 16, respectively).

13. Following encapsulation of PCB-contaminated *porous surfaces*, post-encapsulation sampling shall be conducted to determine the effectiveness of the encapsulation.

a. Wipe sampling of encapsulated surfaces shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e. µg/100 cm^2). Chemical extraction for PCBs shall be conducted using Method 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction or analytical method(s) is validated according to Subpart Q.

b. In the event that any wipe sample PCB concentration is greater than (>) 1 µg/100 cm^2, UMass shall contact EPA for further discussion and direction on alternatives.

14. PCB waste (at any concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with CFR 40 CFR § 761.40; stored in a manner consistent with 40 CFR § 761.65; and, disposed of in accordance with 40 CFR § 761.61 or § 761.62, unless otherwise specified below.

a. Decontamination wastes and residues shall be disposed of in accordance with 40 CFR § 761.79(g)(6).

b. Moveable equipment, tools, and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

c. PCB-contaminated water generated during decontamination or dewatering shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under § 761.60.

DEED RESTRICTION AND USE CONDITIONS

15. Within thirty (30) days of completing the activities described in the Notification and in the Approval, UMass shall submit for EPA review and approval, a draft deed restriction for the Site. The deed restriction shall include: a description of the extent and levels of contamination at the Site following abatement; a description of the actions taken at the Site; a description of the use restrictions for the Site; and the long-term monitoring and maintenance requirements on the Site. Within seven (7) days of receipt of EPA's approval of the draft deed restriction, UMass shall record the deed restriction. A copy of this Approval shall be attached to the deed restriction.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

16. Within 60 days of completion of the work authorized under this Approval, UMass shall submit for EPA's review and approval, a detailed monitoring and maintenance implementation plan (MMIP) for the surface barriers. UMass shall incorporate any changes to the MMIP required by EPA.

    a. The MMIP shall include: a description of the activities that will be conducted, including inspection criteria, frequency, and routine maintenance activities; sampling protocols, sampling frequency, and analytical criteria; and, reporting requirements, as applicable.

    b. The MMIP shall include a communications component which details how the maintenance and monitoring results will be communicated to the Site users, including parents, students, other on-site workers, and interested stakeholders.

    c. The MMIP also shall include a worker training component for maintenance workers or for any person that will be conducting work that could impact the barriers encapsulating the PCB-contaminated surfaces.

    d. UMass shall submit the results of these long-term monitoring and maintenance activities to EPA. Based on its review of the results, EPA may determine that modification to the MMIP is necessary in order to monitor and/or evaluate the long-term effectiveness of the barriers.

    e. Activities required under the MMIP shall be conducted until such time that EPA determines, in writing, that such activities are no longer necessary.

17. UMass shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by UMass to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.

18. Any modification(s) in the plan, specifications, or information submitted by UMass, contained in the Notification, and forming the basis upon which this Approval has been issued, must receive prior written approval from the EPA. UMass shall inform the EPA of any modification, in writing, at least ten (10) days prior to such change. No action may be taken to implement any such modification unless the EPA has approved of the modification, in writing. The EPA may request additional information in order to determine whether to approve the modification.

19. If such modification involves a change in the use of the Site which results in exposures not considered in the Notification, the EPA may revoke, suspend, and/or modify this Approval upon finding that this risk-based disposal action may pose an unreasonable risk of injury to health or the environment due to the change in use. EPA may take similar action if the EPA does not receive requested information needed from UMass to make a determination regarding potential risk.

20. Any misrepresentation or omission of any material fact in the Notification or in any records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

RECORDKEEPING AND REPORTING CONDITIONS

21. UMass shall prepare and maintain all records and documents required by 40 CFR Part 761, including but not limited to the records required under Subparts J and K. A written record of the decontamination and disposal and the analytical sampling shall be established and maintained by UMass in one centralized location, until such time as EPA approves in writing a request for an alternative disposition of such records. All records shall be made available for inspection to authorized representatives of EPA.

22. As required under Condition 16 of this Approval, UMass shall submit the results of the long-term monitoring and maintenance activities to EPA as specified in the final MMIP to be approved by EPA.

23. UMass shall submit a final report (both hard copy and electronic copy) to the EPA within 90 days of completion of the activities authorized under this Approval. At a minimum, this final report shall include: a short narrative of the project activities; characterization and confirmation sampling analytical results; copies of the accompanying analytical chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCB waste disposed of and the size of

the PCB cleanup area(s); copies of manifests and bills of lading; and copies of certificates of disposal or similar certifications issued by the disposer. The Report shall also include a copy of the recorded deed restriction and a certification signed by a UMass official verifying that the authorized activities have been implemented in accordance with this Approval and the Notification.

24. Required submittals shall be mailed to:

Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
5 Post Office Square, Suite 100 – (OSRR07-2)
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527

25. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self-disclosure or penalty policies.

****

END OF ATTACHMENT 1

APPENDIX B: DUST MONITORING LOGS

Dust Monitoring Log - Webster House

Air Monitoring for the Week: 7/19/11-7/20/11

Date: 7/19/11

Time	Location		Reading (mg/m3)		Notes
1030	Background	NE	0.001	Cloudy	insulation work
	Point A	NW	0.005		finished with brick, almost done w/ windows
	Point B	SW	0.008		washing brick, finished windows
	Point C	SE	0.006		1/2 done w/ brick, finished windows
1230	Background	NE	0.000	Raining	insulation work
	Point A	NW	0.003		finished with brick, almost done w/ windows
	Point B	SW	0.002		washing brick, finished windows
	Point C	SE	0.000		1/2 done w/ brick, finished windows
1430	Background	NE	0.007	Cloudy	insulation work
	Point A	NW	0.014		finished with brick, almost done w/ windows
	Point B	SW	0.009		washing brick, finished windows
	Point C	SE	0.002		1/2 done w/ brick, finished windows

Date: 7/20/11

Time	Location		Reading (mg/m3)		Notes
830	Background	NE	0.004	Sunny	
	Point A	NW	0.002		
	Point B	SW	0.022		
	Point C	SE	0.014		
1015	Background	NE	0.007	Sunny	
	Point A	NW	0.008		
	Point B	SW	0.003		
	Point C	SE	0.010		
1400	Background	NE	0.006	Sunny	
	Point A	NW	0.004		
	Point B	SW	0.011		
	Point C	SE	0.001		

Date: 7/21/11

Time	Location		Reading (mg/m3)		Notes
850	Background	NE	0.009	Cloudy	
	Point A	NW	0.000		
	Point B	SW	0.001		
	Point C	SE	0.003		
1115	Background	NE	0.022	Sunny	
	Point A	NW	0.014		
	Point B	SW	0.009		
	Point C	SE	0.001		
1300	Background	NE	0.028	Sunny	
	Point A	NW	0.016		
	Point B	SW	0.037		
	Point C	SE	0.009		

APPENDIX C: ANALYTICAL LABORATORY REPORTS AND DATA VALIDATION SUMMARIES

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

June 17, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: Amherst, MA
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11F0593

Enclosed are results of analyses for samples received by the laboratory on June 16, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 6/17/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11F0593

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Amherst, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VBC-001	11F0593-01	Concrete		SW-846 8082	
WH-VBC-002	11F0593-02	Concrete		SW-846 8082	
WH-VBC-003	11F0593-03	Concrete		SW-846 8082	
WH-VBC-004	11F0593-04	Concrete		SW-846 8082	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Michael A. Erickson
Laboratory Director

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11F0593

Date Received: 6/16/2011

Field Sample #: WH-VBC-001
Sampled: 6/16/2011 10:15

Sample ID: 11F0593-01

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:19	PJG
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:19	PJG
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:19	PJG
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:19	PJG
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:19	PJG
Aroclor-1254 [1]	ND	0.095	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:19	PJG
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:19	PJG
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:19	PJG
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:19	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	122	30-150		6/17/11 13:19
Decachlorobiphenyl [2]	97.9	30-150		6/17/11 13:19
Tetrachloro-m-xylene [1]	103	30-150		6/17/11 13:19
Tetrachloro-m-xylene [2]	98.6	30-150		6/17/11 13:19

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11F0593

Date Received: 6/16/2011

Field Sample #: WH-VBC-002
Sampled: 6/16/2011 10:25

Sample ID: 11F0593-02

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:35	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:35	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:35	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:35	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:35	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:35	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:35	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:35	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:35	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	126	30-150		6/17/11 13:35
Decachlorobiphenyl [2]	101	30-150		6/17/11 13:35
Tetrachloro-m-xylene [1]	105	30-150		6/17/11 13:35
Tetrachloro-m-xylene [2]	99.1	30-150		6/17/11 13:35

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11F0593

Date Received: 6/16/2011

Field Sample #: WH-VBC-003
Sampled: 6/16/2011 10:35

Sample ID: 11F0593-03

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:50	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:50	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:50	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:50	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:50	PJG
Aroclor-1254 [1]	0.17	0.091	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:50	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:50	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:50	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 13:50	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	125	30-150		6/17/11 13:50
Decachlorobiphenyl [2]	100	30-150		6/17/11 13:50
Tetrachloro-m-xylene [1]	102	30-150		6/17/11 13:50
Tetrachloro-m-xylene [2]	96.0	30-150		6/17/11 13:50

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11F0593

Date Received: 6/16/2011

Field Sample #: WH-VBC-004
Sampled: 6/16/2011 10:40

Sample ID: 11F0593-04

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 14:06	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 14:06	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 14:06	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 14:06	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 14:06	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 14:06	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 14:06	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 14:06	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082	6/16/11	6/17/11 14:06	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	129	30-150		6/17/11 14:06
Decachlorobiphenyl [2]	103	30-150		6/17/11 14:06
Tetrachloro-m-xylene [1]	108	30-150		6/17/11 14:06
Tetrachloro-m-xylene [2]	102	30-150		6/17/11 14:06

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
11F0593-01 [WH-VBC-001]	B032215	2.10	10.0	06/16/11
11F0593-02 [WH-VBC-002]	B032215	2.00	10.0	06/16/11
11F0593-03 [WH-VBC-003]	B032215	2.20	10.0	06/16/11
11F0593-04 [WH-VBC-004]	B032215	2.00	10.0	06/16/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B032215 - SW-846 3540C										
Blank (B032215-BLK1)				Prepared: 06/16/11 Analyzed: 06/17/11						
Aroclor-1016	ND	0.10	mg/Kg							
Aroclor-1016 [2C]	ND	0.10	mg/Kg							
Aroclor-1221	ND	0.10	mg/Kg							
Aroclor-1221 [2C]	ND	0.10	mg/Kg							
Aroclor-1232	ND	0.10	mg/Kg							
Aroclor-1232 [2C]	ND	0.10	mg/Kg							
Aroclor-1242	ND	0.10	mg/Kg							
Aroclor-1242 [2C]	ND	0.10	mg/Kg							
Aroclor-1248	ND	0.10	mg/Kg							
Aroclor-1248 [2C]	ND	0.10	mg/Kg							
Aroclor-1254	ND	0.10	mg/Kg							
Aroclor-1254 [2C]	ND	0.10	mg/Kg							
Aroclor-1260	ND	0.10	mg/Kg							
Aroclor-1260 [2C]	ND	0.10	mg/Kg							
Aroclor-1262	ND	0.10	mg/Kg							
Aroclor-1262 [2C]	ND	0.10	mg/Kg							
Aroclor-1268	ND	0.10	mg/Kg							
Aroclor-1268 [2C]	ND	0.10	mg/Kg							
Surrogate: Decachlorobiphenyl	*1.22*		mg/Kg	1.00		122	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.980*		mg/Kg	1.00		98.0	30-150			
Surrogate: Tetrachloro-m-xylene	*1.01*		mg/Kg	1.00		101	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.963*		mg/Kg	1.00		96.3	30-150			
LCS (B032215-BS1)				Prepared: 06/16/11 Analyzed: 06/17/11						
Aroclor-1016	0.32	0.10	mg/Kg	0.250		126	40-140			
Aroclor-1016 [2C]	0.25	0.10	mg/Kg	0.250		99.9	40-140			
Aroclor-1260	0.33	0.10	mg/Kg	0.250		131	40-140			
Aroclor-1260 [2C]	0.26	0.10	mg/Kg	0.250		103	40-140			
Surrogate: Decachlorobiphenyl	*1.22*		mg/Kg	1.00		122	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.974*		mg/Kg	1.00		97.4	30-150			
Surrogate: Tetrachloro-m-xylene	*1.04*		mg/Kg	1.00		104	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.990*		mg/Kg	1.00		99.0	30-150			
LCS Dup (B032215-BSD1)				Prepared: 06/16/11 Analyzed: 06/17/11						
Aroclor-1016	0.33	0.10	mg/Kg	0.250		133	40-140	5.16	30	
Aroclor-1016 [2C]	0.26	0.10	mg/Kg	0.250		104	40-140	3.90	30	
Aroclor-1260	0.34	0.10	mg/Kg	0.250		134	40-140	2.06	30	
Aroclor-1260 [2C]	0.26	0.10	mg/Kg	0.250		102	40-140	0.433	30	
Surrogate: Decachlorobiphenyl	*1.19*		mg/Kg	1.00		119	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.949*		mg/Kg	1.00		94.9	30-150			
Surrogate: Tetrachloro-m-xylene	*1.04*		mg/Kg	1.00		104	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.00*		mg/Kg	1.00		100	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082 in Product/Solid	
Aroclor-1016	CT,NH,NY
Aroclor-1016 [2C]	CT,NH,NY
Aroclor-1221	CT,NH,NY
Aroclor-1221 [2C]	CT,NH,NY
Aroclor-1232	CT,NH,NY
Aroclor-1232 [2C]	CT,NH,NY
Aroclor-1242	CT,NH,NY
Aroclor-1242 [2C]	CT,NH,NY
Aroclor-1248	CT,NH,NY
Aroclor-1248 [2C]	CT,NH,NY
Aroclor-1254	CT,NH,NY
Aroclor-1254 [2C]	CT,NH,NY
Aroclor-1260	CT,NH,NY
Aroclor-1260 [2C]	CT,NH,NY

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2011
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2011
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2011
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028

11F0593

Company Name: WOODARD + CURRAN
Telephone: 1(978)557-8150
Address: 35 NE. BUSINESS CTR, SUITE 180
ANDOVER, MA
Project # 224189
Client PO#
Attention: GEORGE FRANKLIN
Project Location: AMHERST, MA UMASS-WEBSTER
Sampled By: J. REAM

DATA DELIVERY (check all that apply)
O FAX ✓ EMAIL O WEBSITE
Fax # gfranklin@woodardcurran.com
Email: jhamel
Format: ✓ PDF ✓ EXCEL O GIS
O OTHER
O "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
O yes _____ proposal date

ANALYSIS REQUESTED

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCBs (Soxhlet Extraction)											# of Containers	** Preservation	***Container Code
								I	I	A											
-1	WH-VBC-001	6/16/11	1015		✓	O	L	X													
-2	WH-VBC-002	↓	1025		✓	O	L	X													
-3	WH-VBC-003		1035		✓	O	L	X													
-4	WH-VBC-004		1040		✓	O	L	X													

Dissolved Metal
O Field Filtered
O Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other CONCRETE

Comments: PCBs by USEPA 8082 Soxhlet Extraction (Method 3540c)
R.L. ≤1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:
[signature]	6/16/11 1603
Received by: (signature) 3.3°C	Date/Time: 6/16/11 1603
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other ____
RUSH †
☐ †24-Hr ☑ †48-Hr (END OF DAY FRIDAY)
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
O MCP Analytical Certification Form Required
O RCP Analysis Certification Form Required
O MA State DW Form Required PWSID # _____

ACCREDITED IN ACCORDANCE WITH nelac
ACCREDITED LABORATORY AIHA Environmental Lead & Industrial Hygiene

NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard + Curran **RECEIVED BY:** SD **DATE:** 6/15/11

1) Was the chain(s) of custody relinquished and signed? (Yes) No **No CoC Included**

2) Does the chain agree with the samples? (Yes) No

If not, explain:

3) Are all the samples in good condition? (Yes) No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? (Yes) No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 3.3

5) Are there Dissolved samples for the lab to filter? Yes (No)

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? (Yes) No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)	4	2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No (N/A) _____

Do all samples have the proper Base pH: Yes No (N/A) _____

Doc# 277

Rev. 1 May

11F0593-01 WH-VBC-001

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	0.985	0.9390524	4.78
Decachlorobiphenyl	1.17	0.9323857	22.6

11F0593-02 WH-VBC-002

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	1.26	1.011385	21.9
Tetrachloro-m-xylene	1.05	0.991035	5.78

11F0593-03 WH-VBC-003

Analyte	Results		%RPD
Aroclor-1254	0.17	0.1402727	19.2
Surrogates			
Decachlorobiphenyl	1.13	0.9110363	21.5
Tetrachloro-m-xylene	0.925	0.8728	5.81

11F0593-04 WH-VBC-004

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	1.08	1.02297	5.42
Decachlorobiphenyl	1.29	1.03074	22.3

B032215-BLK1 Blank

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	1.01	0.96274	4.79
Decachlorobiphenyl	1.22	0.980235	21.8

B032215-BS1 LCS

Analyte	Results		%RPD
Aroclor-1016	0.32	0.24985	24.6
Aroclor-1260	0.33	0.257105	24.8
Surrogates			
Decachlorobiphenyl	1.22	0.97399	22.4
Tetrachloro-m-xylene	1.04	0.990145	4.91

B032215-BSD1 LCS Dup

Analyte	Results		%RPD
Aroclor-1016	0.33	0.259785	23.8
Aroclor-1260	0.34	0.255995	28.2
Surrogates			
Tetrachloro-m-xylene	1.04	1.003125	3.61
Decachlorobiphenyl	1.19	0.949335	22.5

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11F0593
Project Location: Amherst, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11F0593-01 thru 11F0593-04

Matrices: Product/Solid

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes ☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes ☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes ☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes ☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes ☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes ☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☑ Yes ☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: M Erickson Position: Laboratory Director

Printed Name: Michael A. Erickson Date: 06/17/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

June 27, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: Amherst, MA UMASS-Webster
Client Job Number:
Project Number: 224189 Webster
Laboratory Work Order Number: 11F0697

Enclosed are results of analyses for samples received by the laboratory on June 20, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 6/27/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189 Webster

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11F0697

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Amherst, MA UMASS-Webster

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VBS-005	11F0697-01	Product/Solid		SW-846 8082A	
WH-VBC-006	11F0697-02	Concrete		SW-846 8082A	
WH-VBC-007	11F0697-03	Concrete		SW-846 8082A	
WH-VBS-008	11F0697-04	Product/Solid		SW-846 8082A	
WH-VBS-009	11F0697-05	Product/Solid		SW-846 8082A	
WH-VBS-010	11F0697-06	Product/Solid		SW-846 8082A	
WH-VBS-011	11F0697-07	Product/Solid		SW-846 8082A	
WH-VBC-012	11F0697-08	Concrete		SW-846 8082A	
WH-VBC-013	11F0697-09	Concrete		SW-846 8082A	
WH-VBS-014	11F0697-10	Product/Solid		SW-846 8082A	
WH-VBS-015	11F0697-11	Product/Solid		SW-846 8082A	
WH-VBS-016	11F0697-12	Product/Solid		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Daren J. Damboragian
Laboratory Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA UMASS-Webster Sample Description: Work Order: 11F0697

Date Received: 6/20/2011

Field Sample #: WH-VBS-005 Sampled: 6/20/2011 09:30

Sample ID: 11F0697-01

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:29	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:29	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:29	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:29	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:29	PJG
Aroclor-1254 [2]	0.14	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:29	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:29	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:29	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:29	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	92.6	30-150		6/24/11 19:29
Decachlorobiphenyl [2]	100	30-150		6/24/11 19:29
Tetrachloro-m-xylene [1]	100	30-150		6/24/11 19:29
Tetrachloro-m-xylene [2]	93.8	30-150		6/24/11 19:29

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA UMASS-Webster Sample Description: Work Order: 11F0697

Date Received: 6/20/2011

Field Sample #: WH-VBC-006 Sampled: 6/20/2011 09:35

Sample ID: 11F0697-02

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:45	PJG
Aroclor-1221 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:45	PJG
Aroclor-1232 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:45	PJG
Aroclor-1242 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:45	PJG
Aroclor-1248 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:45	PJG
Aroclor-1254 [1]	0.21	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:45	PJG
Aroclor-1260 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:45	PJG
Aroclor-1262 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:45	PJG
Aroclor-1268 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 19:45	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	92.5	30-150		6/24/11 19:45
Decachlorobiphenyl [2]	95.4	30-150		6/24/11 19:45
Tetrachloro-m-xylene [1]	97.8	30-150		6/24/11 19:45
Tetrachloro-m-xylene [2]	92.8	30-150		6/24/11 19:45

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA UMASS-Webster
Sample Description:
Work Order: 11F0697

Date Received: 6/20/2011

Field Sample #: WH-VBC-007
Sampled: 6/20/2011 09:50

Sample ID: 11F0697-03

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:00	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:00	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:00	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:00	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:00	PJG
Aroclor-1254 [1]	0.51	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:00	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:00	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:00	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:00	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	94.5	30-150		6/24/11 20:00
Decachlorobiphenyl [2]	99.0	30-150		6/24/11 20:00
Tetrachloro-m-xylene [1]	101	30-150		6/24/11 20:00
Tetrachloro-m-xylene [2]	95.4	30-150		6/24/11 20:00

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA UMASS-Webster Sample Description: Work Order: 11F0697

Date Received: 6/20/2011

Field Sample #: WH-VBS-008 Sampled: 6/20/2011 10:10

Sample ID: 11F0697-04

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:16	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:16	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:16	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:16	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:16	PJG
Aroclor-1254 [1]	0.14	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:16	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:16	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:16	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:16	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	94.1	30-150		6/24/11 20:16
Decachlorobiphenyl [2]	98.4	30-150		6/24/11 20:16
Tetrachloro-m-xylene [1]	101	30-150		6/24/11 20:16
Tetrachloro-m-xylene [2]	95.3	30-150		6/24/11 20:16

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA UMASS-Webster Sample Description: Work Order: 11F0697

Date Received: 6/20/2011

Field Sample #: WH-VBS-009 Sampled: 6/20/2011 10:25

Sample ID: 11F0697-05

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:31	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:31	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:31	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:31	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:31	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:31	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:31	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:31	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:31	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	88.6	30-150		6/24/11 20:31
Decachlorobiphenyl [2]	92.6	30-150		6/24/11 20:31
Tetrachloro-m-xylene [1]	95.3	30-150		6/24/11 20:31
Tetrachloro-m-xylene [2]	92.2	30-150		6/24/11 20:31

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA UMASS-Webster Sample Description: Work Order: 11F0697

Date Received: 6/20/2011

Field Sample #: WH-VBS-010 Sampled: 6/20/2011 10:45

Sample ID: 11F0697-06

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:47	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:47	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:47	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:47	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:47	PJG
Aroclor-1254 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:47	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:47	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:47	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 20:47	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	76.8	30-150		6/24/11 20:47
Decachlorobiphenyl [2]	84.0	30-150		6/24/11 20:47
Tetrachloro-m-xylene [1]	87.8	30-150		6/24/11 20:47
Tetrachloro-m-xylene [2]	83.9	30-150		6/24/11 20:47

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA UMASS-Webster Sample Description: Work Order: 11F0697

Date Received: 6/20/2011

Field Sample #: WH-VBS-011 Sampled: 6/20/2011 11:25

Sample ID: 11F0697-07

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:03	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:03	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:03	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:03	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:03	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:03	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:03	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:03	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:03	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	130	30-150		6/24/11 21:03
Decachlorobiphenyl [2]	135	30-150		6/24/11 21:03
Tetrachloro-m-xylene [1]	119	30-150		6/24/11 21:03
Tetrachloro-m-xylene [2]	114	30-150		6/24/11 21:03

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA UMASS-Webster Sample Description: Work Order: 11F0697

Date Received: 6/20/2011

Field Sample #: WH-VBC-012 Sampled: 6/20/2011 11:35

Sample ID: 11F0697-08

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:18	PJG
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:18	PJG
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:18	PJG
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:18	PJG
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:18	PJG
Aroclor-1254 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:18	PJG
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:18	PJG
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:18	PJG
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:18	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	87.5	30-150		6/24/11 21:18
Decachlorobiphenyl [2]	93.1	30-150		6/24/11 21:18
Tetrachloro-m-xylene [1]	99.5	30-150		6/24/11 21:18
Tetrachloro-m-xylene [2]	94.7	30-150		6/24/11 21:18

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA UMASS-Webster Sample Description: Work Order: 11F0697

Date Received: 6/20/2011

Field Sample #: WH-VBC-013 Sampled: 6/20/2011 11:45

Sample ID: 11F0697-09

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:34	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:34	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:34	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:34	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:34	PJG
Aroclor-1254 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:34	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:34	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:34	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:34	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	143	30-150		6/24/11 21:34
Decachlorobiphenyl [2]	147	30-150		6/24/11 21:34
Tetrachloro-m-xylene [1]	135	30-150		6/24/11 21:34
Tetrachloro-m-xylene [2]	127	30-150		6/24/11 21:34

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA UMASS-Webster Sample Description: Work Order: 11F0697

Date Received: 6/20/2011

Field Sample #: WH-VBS-014 Sampled: 6/20/2011 12:00

Sample ID: 11F0697-10

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:49	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:49	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:49	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:49	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:49	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:49	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:49	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:49	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 21:49	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	91.9	30-150		6/24/11 21:49
Decachlorobiphenyl [2]	96.4	30-150		6/24/11 21:49
Tetrachloro-m-xylene [1]	95.8	30-150		6/24/11 21:49
Tetrachloro-m-xylene [2]	91.6	30-150		6/24/11 21:49

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA UMASS-Webster Sample Description: Work Order: 11F0697

Date Received: 6/20/2011

Field Sample #: WH-VBS-015 Sampled: 6/20/2011 12:20

Sample ID: 11F0697-11

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:05	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:05	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:05	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:05	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:05	PJG
Aroclor-1254 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:05	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:05	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:05	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:05	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	95.9	30-150		6/24/11 22:05
Decachlorobiphenyl [2]	99.2	30-150		6/24/11 22:05
Tetrachloro-m-xylene [1]	99.3	30-150		6/24/11 22:05
Tetrachloro-m-xylene [2]	94.5	30-150		6/24/11 22:05

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA UMASS-Webster
Sample Description:
Work Order: 11F0697

Date Received: 6/20/2011

Field Sample #: WH-VBS-016
Sampled: 6/20/2011 12:35

Sample ID: 11F0697-12

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:21	PJG
Aroclor-1221 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:21	PJG
Aroclor-1232 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:21	PJG
Aroclor-1242 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:21	PJG
Aroclor-1248 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:21	PJG
Aroclor-1254 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:21	PJG
Aroclor-1260 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:21	PJG
Aroclor-1262 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:21	PJG
Aroclor-1268 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/21/11	6/24/11 22:21	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	92.6	30-150		6/24/11 22:21
Decachlorobiphenyl [2]	94.5	30-150		6/24/11 22:21
Tetrachloro-m-xylene [1]	96.1	30-150		6/24/11 22:21
Tetrachloro-m-xylene [2]	92.5	30-150		6/24/11 22:21

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
11F0697-01 [WH-VBS-005]	B032436	2.00	10.0	06/21/11
11F0697-02 [WH-VBC-006]	B032436	2.30	10.0	06/21/11
11F0697-03 [WH-VBC-007]	B032436	2.20	10.0	06/21/11
11F0697-04 [WH-VBS-008]	B032436	2.20	10.0	06/21/11
11F0697-05 [WH-VBS-009]	B032436	2.00	10.0	06/21/11
11F0697-06 [WH-VBS-010]	B032436	2.20	10.0	06/21/11
11F0697-07 [WH-VBS-011]	B032436	2.00	10.0	06/21/11
11F0697-08 [WH-VBC-012]	B032436	2.10	10.0	06/21/11
11F0697-09 [WH-VBC-013]	B032436	2.20	10.0	06/21/11
11F0697-10 [WH-VBS-014]	B032436	2.00	10.0	06/21/11
11F0697-11 [WH-VBS-015]	B032436	2.20	10.0	06/21/11
11F0697-12 [WH-VBS-016]	B032436	2.30	10.0	06/21/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B032436 - SW-846 3540C										
Blank (B032436-BLK1)				Prepared: 06/21/11 Analyzed: 06/24/11						
Aroclor-1016	ND	0.10	mg/Kg							
Aroclor-1016 [2C]	ND	0.10	mg/Kg							
Aroclor-1221	ND	0.10	mg/Kg							
Aroclor-1221 [2C]	ND	0.10	mg/Kg							
Aroclor-1232	ND	0.10	mg/Kg							
Aroclor-1232 [2C]	ND	0.10	mg/Kg							
Aroclor-1242	ND	0.10	mg/Kg							
Aroclor-1242 [2C]	ND	0.10	mg/Kg							
Aroclor-1248	ND	0.10	mg/Kg							
Aroclor-1248 [2C]	ND	0.10	mg/Kg							
Aroclor-1254	ND	0.10	mg/Kg							
Aroclor-1254 [2C]	ND	0.10	mg/Kg							
Aroclor-1260	ND	0.10	mg/Kg							
Aroclor-1260 [2C]	ND	0.10	mg/Kg							
Aroclor-1262	ND	0.10	mg/Kg							
Aroclor-1262 [2C]	ND	0.10	mg/Kg							
Aroclor-1268	ND	0.10	mg/Kg							
Aroclor-1268 [2C]	ND	0.10	mg/Kg							
Surrogate: Decachlorobiphenyl	*0.932*		mg/Kg	1.00		93.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.977*		mg/Kg	1.00		97.7	30-150			
Surrogate: Tetrachloro-m-xylene	*0.984*		mg/Kg	1.00		98.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.935*		mg/Kg	1.00		93.5	30-150			
LCS (B032436-BS1)				Prepared: 06/21/11 Analyzed: 06/24/11						
Aroclor-1016	0.25	0.10	mg/Kg	0.250		99.1	40-140			
Aroclor-1016 [2C]	0.23	0.10	mg/Kg	0.250		92.4	40-140			
Aroclor-1260	0.25	0.10	mg/Kg	0.250		99.0	40-140			
Aroclor-1260 [2C]	0.25	0.10	mg/Kg	0.250		98.2	40-140			
Surrogate: Decachlorobiphenyl	*0.945*		mg/Kg	1.00		94.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.966*		mg/Kg	1.00		96.6	30-150			
Surrogate: Tetrachloro-m-xylene	*1.02*		mg/Kg	1.00		102	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.965*		mg/Kg	1.00		96.5	30-150			
LCS Dup (B032436-BSD1)				Prepared: 06/21/11 Analyzed: 06/24/11						
Aroclor-1016	0.23	0.10	mg/Kg	0.250		93.8	40-140	5.50	30	
Aroclor-1016 [2C]	0.23	0.10	mg/Kg	0.250		91.3	40-140	1.27	30	
Aroclor-1260	0.23	0.10	mg/Kg	0.250		90.8	40-140	8.61	30	
Aroclor-1260 [2C]	0.25	0.10	mg/Kg	0.250		99.1	40-140	0.997	30	
Surrogate: Decachlorobiphenyl	*1.76*		mg/Kg	2.00		88.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.78*		mg/Kg	2.00		88.9	30-150			
Surrogate: Tetrachloro-m-xylene	*1.66*		mg/Kg	2.00		83.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.59*		mg/Kg	2.00		79.3	30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B032436 - SW-846 3540C										
Matrix Spike (B032436-MS1)		**Source: 11F0697-06**		Prepared: 06/21/11 Analyzed: 06/24/11						
Aroclor-1016	0.23	0.10	mg/Kg	0.250	0.0	91.8	40-140			
Aroclor-1016 [2C]	0.23	0.10	mg/Kg	0.250	0.0	90.7	40-140			
Aroclor-1260	0.23	0.10	mg/Kg	0.250	0.0	91.8	40-140			
Aroclor-1260 [2C]	0.25	0.10	mg/Kg	0.250	0.0	98.8	40-140			
Surrogate: Decachlorobiphenyl	*0.955*		mg/Kg	1.00		95.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.985*		mg/Kg	1.00		98.5	30-150			
Surrogate: Tetrachloro-m-xylene	*1.02*		mg/Kg	1.00		102	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.952*		mg/Kg	1.00		95.2	30-150			
Matrix Spike Dup (B032436-MSD1)		**Source: 11F0697-06**		Prepared: 06/21/11 Analyzed: 06/24/11						
Aroclor-1016	0.22	0.095	mg/Kg	0.238	0.0	92.4	40-140	4.15	50	
Aroclor-1016 [2C]	0.22	0.095	mg/Kg	0.238	0.0	92.2	40-140	3.18	50	
Aroclor-1260	0.25	0.095	mg/Kg	0.238	0.0	103	40-140	7.01	50	
Aroclor-1260 [2C]	0.23	0.095	mg/Kg	0.238	0.0	97.4	40-140	6.30	50	
Surrogate: Decachlorobiphenyl	*0.907*		mg/Kg	0.952		95.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.940*		mg/Kg	0.952		98.7	30-150			
Surrogate: Tetrachloro-m-xylene	*0.941*		mg/Kg	0.952		98.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.896*		mg/Kg	0.952		94.1	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Product/Solid	
Aroclor-1016	CT,NH,NY,ME,NC
Aroclor-1016 [2C]	CT,NH,NY,ME,NC
Aroclor-1221	CT,NH,NY,ME,NC
Aroclor-1221 [2C]	CT,NH,NY,ME,NC
Aroclor-1232	CT,NH,NY,ME,NC
Aroclor-1232 [2C]	CT,NH,NY,ME,NC
Aroclor-1242	CT,NH,NY,ME,NC
Aroclor-1242 [2C]	CT,NH,NY,ME,NC
Aroclor-1248	CT,NH,NY,ME,NC
Aroclor-1248 [2C]	CT,NH,NY,ME,NC
Aroclor-1254	CT,NH,NY,ME,NC
Aroclor-1254 [2C]	CT,NH,NY,ME,NC
Aroclor-1260	CT,NH,NY,ME,NC
Aroclor-1260 [2C]	CT,NH,NY,ME,NC

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2011
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2011
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2011
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

11F0697

39 Spruce Street
East longmeadow, MA 01028

Company Name: WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR, SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: AMHERST, MA UMASS-WEBSTER
Sampled By: J. REAM

Telephone: 1(978) 557-8150
Project # 224189 WEBSTER
Client PO#

DATA DELIVERY (check all that apply)
O FAX ✓ EMAIL O WEBSITE
Fax # gfranklin@woodardcurran.com
Email: jhand@
Format: ✓ PDF ✓ EXCEL O GIS
O OTHER
O "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
O yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCB's (Soxhlet Extraction)											# of Containers	** Preservation	***Container Code
								1											1	I	A
-1	WH-VBS-005	6/20/11	0930		✓	O	L	X													
-2	WH-VBC-006		0935		✓	O	L	X													
-3	WH-VBC-007		0950		✓	O	L	X													
-4	WH-VBS-008		1010		✓	O	L	X													
-5	WH-VBS-009		1025		✓	O	L	X													
-6	WH-VBS-010		1045		✓	O	L	X													
-7	WH-VBS-011		1125		✓	O	L	X													
-8	WH-VBC-012		1135		✓	O	L	X													
-9	WH-VBC-013		1145		✓	O	L	X													
-10	WH-VBS-014		1200		✓	O	L	X													

ANALYSIS REQUESTED

Comments: PCB's by USEPA 8082 via Method 3540c (Soxhlet Extraction)
R.L. ≤1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other state conc.

Dissolved Metals
O Field Filtered
O Lab to Filter

Relinquished by: (signature)	Date/Time: 6/20/11
Received by: (signature)	Date/Time: 6/20 1355
Relinquished by: (signature)	Date/Time: 6/20 1655
Received by: (signature) 3.5	Date/Time: 6/20 1655

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other 5 DAY
RUSH †
☐ †24-Hr ☐ †48-Hr NO CHARGE
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
O MCP Analytical Certification Form Required
O RCP Analysis Certification Form Required
O MA State DW Form Required PWSID # _____

ACCREDITED IN ACCORDANCE WITH nelac
ACCREDITED LABORATORY AIHA Environmental Lead & Industrial Hygiene

NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

CHAIN OF CUSTODY RECORD

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

Page 2 of 2

11F0697

Company Name: WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR, SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER AMHERST, MA
Sampled By: J. REAM

Telephone: 1(978)557-8150
Project # 224189 (WEBSTER)
Client PO#

DATA DELIVERY (check all that apply)
O FAX ☑ EMAIL O WEBSITE
Fax # gfranklin@woodardcurran.com
Email: jreal
Format: ☑ PDF ☑ EXCEL O GIS
O OTHER
O "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
O yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCBs (Soxhlet Extraction)											# of Containers	** Preservation	***Container Code
								I											I	I	A
-11	WH-VBS-015	6/20/11	1220		✓	O	L	X													
-12	WH-VBS-016	↓	1235		✓	O	L	X													

ANALYSIS REQUESTED

Dissolved Metals
O Field Filtered
O Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other SLATE/CONCRETE

Comments: PCB's by USEPA 8082 via 3540c (Soxhlet)
R.L. ≤1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 6/20/11
Received by: (signature)	Date/Time: 6/20 1355
Relinquished by: (signature)	Date/Time: 6/20 1655
Received by: (signature)	Date/Time: 6/20 1655

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other 5 DAY
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

NO LIMITS

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
O MCP Analytical Certification Form Required
O RCP Analysis Certification Form Required
O MA State DW Form Required PWSID # _____

ACCREDITED IN ACCORDANCE WITH nelac
AIHA Environmental Lead & Industrial Hygiene

NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard + Curran **RECEIVED BY:** SD **DATE:** 6/20/11

1) Was the chain(s) of custody relinquished and signed? (Yes) No **No CoC Included**

2) Does the chain agree with the samples? (Yes) No

If not, explain:

3) Are all the samples in good condition? (Yes) No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? (Yes) No N/A

Temperature °C by Temp blank 3.5 Temperature °C by Temp gun _____

5) Are there Dissolved samples for the lab to filter? Yes (No)

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes (No)

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)	12	2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No (N/A) _____

Do all samples have the proper Base pH: Yes No (N/A) _____

Doc# 277

Rev. 1 May 2011

11F0697-01 WH-VBS-005

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.14	0.105155	28.4
Surrogates			
Decachlorobiphenyl	0.926	1.002965	7.98
Tetrachloro-m-xylene	1.00	0.9377	6.43

11F0697-02 WH-VBC-006

Analyte	Results		%RPD
Aroclor-1254	0.21	0.2118739	0.888
Surrogates			
Decachlorobiphenyl	0.805	0.8291348	2.95
Tetrachloro-m-xylene	0.851	0.8070392	5.3

11F0697-03 WH-VBC-007

Analyte	Results		%RPD
Aroclor-1254	0.51	0.5081954	0.354
Surrogates			
Decachlorobiphenyl	0.859	0.9000637	4.67
Tetrachloro-m-xylene	0.914	0.8675682	5.21

11F0697-04 WH-VBS-008

Analyte	Results		%RPD
Aroclor-1254	0.14	9.839091E-02	34.9
Surrogates			
Decachlorobiphenyl	0.855	0.8943272	4.5
Tetrachloro-m-xylene	0.922	0.8667272	6.18

11F0697-05 WH-VBS-009

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	0.953	0.922415	3.26
Decachlorobiphenyl	0.886	0.92573	4.39

11F0697-06 WH-VBS-010

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.698	0.7632545	8.93
Tetrachloro-m-xylene	0.798	0.7624818	4.55

11F0697-07 WH-VBS-011

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	1.30	1.34797	3.62
Tetrachloro-m-xylene	1.19	1.14316	4.02

11F0697-08 WH-VBC-012

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.833	0.8868477	6.26
Tetrachloro-m-xylene	0.947	0.9018429	4.88

11F0697-09 WH-VBC-013

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	1.22	1.150236	5.89
Decachlorobiphenyl	1.30	1.338141	2.89

11F0697-10 WH-VBS-014

Analyte	Results		%RPD
Surrogates			

Tetrachloro-m-xylene	0.958	0.91566	4.52
Decachlorobiphenyl	0.919	0.964295	4.81

11F0697-11 WH-VBS-015

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.871	0.9018863	3.48
Tetrachloro-m-xylene	0.903	0.8590591	4.99

11F0697-12 WH-VBS-016

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.805	0.8217696	2.06
Tetrachloro-m-xylene	0.836	0.8040261	3.9

B032436-BLK1 Blank

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.932	0.97711	4.73
Tetrachloro-m-xylene	0.984	0.93543	5.06

B032436-BS1 LCS

Analyte	Results		%RPD
Aroclor-1016	0.25	0.231125	7.85
Aroclor-1260	0.25	0.245395	1.86
Surrogates			
Tetrachloro-m-xylene	1.02	0.965135	5.53
Decachlorobiphenyl	0.945	0.96617	2.22

B032436-BSD1 LCS Dup

Analyte	Results		%RPD
Aroclor-1016	0.23	0.228205	0.783
Aroclor-1260	0.23	0.247855	7.47
Surrogates			
Tetrachloro-m-xylene	1.66	1.586825	4.51
Decachlorobiphenyl	1.76	1.778275	1.03

B032436-MS1 Matrix Spike

Analyte	Results		%RPD
Aroclor-1016	0.23	0.22664	1.47
Aroclor-1260	0.23	0.246885	7.08
Surrogates			
Decachlorobiphenyl	0.955	0.985195	3.11
Tetrachloro-m-xylene	1.02	0.9525	6.84

B032436-MSD1 Matrix Spike Dup

Analyte	Results		%RPD
Aroclor-1016	0.22	0.2195429	0.208
Aroclor-1260	0.25	0.2317952	7.56
Surrogates			
Tetrachloro-m-xylene	0.941	0.8964953	4.84
Decachlorobiphenyl	0.907	0.9395905	3.53

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Con-Test Analytical Laboratory

Client: HRP Associates, Inc. (Private)

Project Location: Reliable Mfg., Bloomfield, CT

Project Number: 11F0892

Laboratory Sample ID(s):

11F0892-01

Sample Date(s):

06/23/2011

List RCP Methods Used:

, , SW-846 6020A, SW-846 7470A

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1A	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1B	VPH and EPH Methods only: Was the VPH and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)?	☐ Yes ☐ No ☑ N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (< 6 degrees C.)?	☑ Yes ☐ No ☐ N/A
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5A	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5B	Were these reporting limits met?	☑ Yes ☐ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence."
This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: **Position:** **Laboratory Manager**

Printed Name: **Daren J. Damboragian** **Date:** **06/27/11**

Name of Laboratory: **Con-Test Analytical Laboratory**

This certification form is to be used for RCP methods only.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

June 28, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: UMass Webster (Amherst, MA)
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11F0743

Enclosed are results of analyses for samples received by the laboratory on June 21, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 6/28/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11F0743

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: UMass Webster (Amherst, MA)

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VBS-017	11F0743-01	Product/Solid		SW-846 8082A	
WH-VBS-018	11F0743-02	Product/Solid		SW-846 8082A	
WH-VBSD-019	11F0743-03	Product/Solid		SW-846 8082A	
WH-VBSQ-020	11F0743-04	Water		SW-846 8082A	
WH-VBS-021	11F0743-05	Product/Solid		SW-846 8082A	
WH-VBS-022	11F0743-06	Product/Solid		SW-846 8082A	
WH-VBS-023	11F0743-07	Product/Solid		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Michael A. Erickson
Laboratory Director

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster (Amherst, MA) Sample Description: Work Order: 11F0743

Date Received: 6/21/2011

Field Sample #: WH-VBS-017 Sampled: 6/21/2011 09:15

Sample ID: 11F0743-01

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:38	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:38	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:38	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:38	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:38	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:38	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:38	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:38	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:38	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	86.8	30-150		6/25/11 11:38
Decachlorobiphenyl [2]	102	30-150		6/25/11 11:38
Tetrachloro-m-xylene [1]	93.0	30-150		6/25/11 11:38
Tetrachloro-m-xylene [2]	90.6	30-150		6/25/11 11:38

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster (Amherst, MA) Sample Description: Work Order: 11F0743

Date Received: 6/21/2011

Field Sample #: WH-VBS-018 Sampled: 6/21/2011 09:40

Sample ID: 11F0743-02

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:53	PJG
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:53	PJG
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:53	PJG
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:53	PJG
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:53	PJG
Aroclor-1254 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:53	PJG
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:53	PJG
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:53	PJG
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 11:53	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	84.9	30-150		6/25/11 11:53
Decachlorobiphenyl [2]	92.7	30-150		6/25/11 11:53
Tetrachloro-m-xylene [1]	93.7	30-150		6/25/11 11:53
Tetrachloro-m-xylene [2]	90.1	30-150		6/25/11 11:53

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster (Amherst, MA) Sample Description: Work Order: 11F0743

Date Received: 6/21/2011

Field Sample #: WH-VBSD-019 Sampled: 6/21/2011 09:40

Sample ID: 11F0743-03

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:09	PJG
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:09	PJG
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:09	PJG
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:09	PJG
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:09	PJG
Aroclor-1254 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:09	PJG
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:09	PJG
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:09	PJG
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:09	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	87.7	30-150		6/25/11 12:09
Decachlorobiphenyl [2]	93.1	30-150		6/25/11 12:09
Tetrachloro-m-xylene [1]	97.1	30-150		6/25/11 12:09
Tetrachloro-m-xylene [2]	93.3	30-150		6/25/11 12:09

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster (Amherst, MA) Sample Description: Work Order: 11F0743

Date Received: 6/21/2011

Field Sample #: WH-VBSQ-020 Sampled: 6/21/2011 10:30

Sample ID: 11F0743-04

Sample Matrix: Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/23/11	6/25/11 16:50	PJG
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/23/11	6/25/11 16:50	PJG
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/23/11	6/25/11 16:50	PJG
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/23/11	6/25/11 16:50	PJG
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/23/11	6/25/11 16:50	PJG
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/23/11	6/25/11 16:50	PJG
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/23/11	6/25/11 16:50	PJG
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/23/11	6/25/11 16:50	PJG
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/23/11	6/25/11 16:50	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	48.4	30-150		6/25/11 16:50
Decachlorobiphenyl [2]	52.2	30-150		6/25/11 16:50
Tetrachloro-m-xylene [1]	92.9	30-150		6/25/11 16:50
Tetrachloro-m-xylene [2]	90.3	30-150		6/25/11 16:50

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster (Amherst, MA) Sample Description: Work Order: 11F0743

Date Received: 6/21/2011

Field Sample #: WH-VBS-021 Sampled: 6/21/2011 11:00

Sample ID: 11F0743-05

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:25	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:25	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:25	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:25	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:25	PJG
Aroclor-1254 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:25	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:25	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:25	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:25	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	92.1	30-150		6/25/11 12:25
Decachlorobiphenyl [2]	99.5	30-150		6/25/11 12:25
Tetrachloro-m-xylene [1]	98.2	30-150		6/25/11 12:25
Tetrachloro-m-xylene [2]	94.5	30-150		6/25/11 12:25

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster (Amherst, MA) Sample Description: Work Order: 11F0743

Date Received: 6/21/2011

Field Sample #: WH-VBS-022 Sampled: 6/21/2011 11:10

Sample ID: 11F0743-06

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:40	PJG
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:40	PJG
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:40	PJG
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:40	PJG
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:40	PJG
Aroclor-1254 [1]	0.16	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:40	PJG
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:40	PJG
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:40	PJG
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:40	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	92.0	30-150		6/25/11 12:40
Decachlorobiphenyl [2]	99.1	30-150		6/25/11 12:40
Tetrachloro-m-xylene [1]	99.9	30-150		6/25/11 12:40
Tetrachloro-m-xylene [2]	96.0	30-150		6/25/11 12:40

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster (Amherst, MA) Sample Description: Work Order: 11F0743

Date Received: 6/21/2011

Field Sample #: WH-VBS-023 Sampled: 6/21/2011 11:20

Sample ID: 11F0743-07

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:56	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:56	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:56	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:56	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:56	PJG
Aroclor-1254 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:56	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:56	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:56	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/21/11	6/25/11 12:56	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	89.9	30-150		6/25/11 12:56
Decachlorobiphenyl [2]	94.0	30-150		6/25/11 12:56
Tetrachloro-m-xylene [1]	96.9	30-150		6/25/11 12:56
Tetrachloro-m-xylene [2]	94.1	30-150		6/25/11 12:56

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
11F0743-01 [WH-VBS-017]	B032450	2.00	10.0	06/21/11
11F0743-02 [WH-VBS-018]	B032450	2.10	10.0	06/21/11
11F0743-03 [WH-VBSD-019]	B032450	2.10	10.0	06/21/11
11F0743-05 [WH-VBS-021]	B032450	2.20	10.0	06/21/11
11F0743-06 [WH-VBS-022]	B032450	2.10	10.0	06/21/11
11F0743-07 [WH-VBS-023]	B032450	2.20	10.0	06/21/11

Prep Method: SW-846 3510C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
11F0743-04 [WH-VBSQ-020]	B032535	1000	10.0	06/23/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B032450 - SW-846 3540C										
Blank (B032450-BLK1)				Prepared: 06/21/11 Analyzed: 06/25/11						
Aroclor-1016	ND	0.10	mg/Kg							
Aroclor-1016 [2C]	ND	0.10	mg/Kg							
Aroclor-1221	ND	0.10	mg/Kg							
Aroclor-1221 [2C]	ND	0.10	mg/Kg							
Aroclor-1232	ND	0.10	mg/Kg							
Aroclor-1232 [2C]	ND	0.10	mg/Kg							
Aroclor-1242	ND	0.10	mg/Kg							
Aroclor-1242 [2C]	ND	0.10	mg/Kg							
Aroclor-1248	ND	0.10	mg/Kg							
Aroclor-1248 [2C]	ND	0.10	mg/Kg							
Aroclor-1254	ND	0.10	mg/Kg							
Aroclor-1254 [2C]	ND	0.10	mg/Kg							
Aroclor-1260	ND	0.10	mg/Kg							
Aroclor-1260 [2C]	ND	0.10	mg/Kg							
Aroclor-1262	ND	0.10	mg/Kg							
Aroclor-1262 [2C]	ND	0.10	mg/Kg							
Aroclor-1268	ND	0.10	mg/Kg							
Aroclor-1268 [2C]	ND	0.10	mg/Kg							
Surrogate: Decachlorobiphenyl	*0.960*		mg/Kg	1.00		96.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.03*		mg/Kg	1.00		103	30-150			
Surrogate: Tetrachloro-m-xylene	*0.968*		mg/Kg	1.00		96.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.928*		mg/Kg	1.00		92.8	30-150			
LCS (B032450-BS1)				Prepared: 06/21/11 Analyzed: 06/25/11						
Aroclor-1016	0.23	0.10	mg/Kg	0.250		93.3	40-140			
Aroclor-1016 [2C]	0.22	0.10	mg/Kg	0.250		88.3	40-140			
Aroclor-1260	0.24	0.10	mg/Kg	0.250		96.7	40-140			
Aroclor-1260 [2C]	0.24	0.10	mg/Kg	0.250		94.8	40-140			
Surrogate: Decachlorobiphenyl	*0.931*		mg/Kg	1.00		93.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.985*		mg/Kg	1.00		98.5	30-150			
Surrogate: Tetrachloro-m-xylene	*1.01*		mg/Kg	1.00		101	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.970*		mg/Kg	1.00		97.0	30-150			
LCS Dup (B032450-BSD1)				Prepared: 06/21/11 Analyzed: 06/25/11						
Aroclor-1016	0.26	0.10	mg/Kg	0.250		104	40-140	10.7	30	
Aroclor-1016 [2C]	0.23	0.10	mg/Kg	0.250		91.7	40-140	3.83	30	
Aroclor-1260	0.24	0.10	mg/Kg	0.250		95.4	40-140	1.37	30	
Aroclor-1260 [2C]	0.25	0.10	mg/Kg	0.250		102	40-140	7.07	30	
Surrogate: Decachlorobiphenyl	*0.979*		mg/Kg	1.00		97.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.05*		mg/Kg	1.00		105	30-150			
Surrogate: Tetrachloro-m-xylene	*1.01*		mg/Kg	1.00		101	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.972*		mg/Kg	1.00		97.2	30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B032450 - SW-846 3540C										
Matrix Spike (B032450-MS1)		**Source: 11F0743-02**		Prepared: 06/21/11 Analyzed: 06/25/11						
Aroclor-1016	0.19	0.091	mg/Kg	0.227	0.0	83.2	40-140			
Aroclor-1016 [2C]	0.21	0.091	mg/Kg	0.227	0.0	93.5	40-140			
Aroclor-1260	0.21	0.091	mg/Kg	0.227	0.0	91.3	40-140			
Aroclor-1260 [2C]	0.21	0.091	mg/Kg	0.227	0.0	92.8	40-140			
Surrogate: Decachlorobiphenyl	*0.810*		mg/Kg	0.909		89.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.892*		mg/Kg	0.909		98.1	30-150			
Surrogate: Tetrachloro-m-xylene	*0.853*		mg/Kg	0.909		93.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.832*		mg/Kg	0.909		91.5	30-150			
Matrix Spike Dup (B032450-MSD1)		**Source: 11F0743-02**		Prepared: 06/21/11 Analyzed: 06/25/11						
Aroclor-1016	0.22	0.10	mg/Kg	0.250	0.0	88.3	40-140	15.4	50	
Aroclor-1016 [2C]	0.23	0.10	mg/Kg	0.250	0.0	92.4	40-140	8.44	50	
Aroclor-1260	0.25	0.10	mg/Kg	0.250	0.0	99.2	40-140	17.9	50	
Aroclor-1260 [2C]	0.24	0.10	mg/Kg	0.250	0.0	96.1	40-140	13.0	50	
Surrogate: Decachlorobiphenyl	*0.905*		mg/Kg	1.00		90.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.984*		mg/Kg	1.00		98.4	30-150			
Surrogate: Tetrachloro-m-xylene	*0.939*		mg/Kg	1.00		93.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.910*		mg/Kg	1.00		91.0	30-150			
Batch B032535 - SW-846 3510C										
Blank (B032535-BLK1)				Prepared: 06/23/11 Analyzed: 06/25/11						
Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	*2.07*		µg/L	2.00		103	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.25*		µg/L	2.00		112	30-150			
Surrogate: Tetrachloro-m-xylene	*2.07*		µg/L	2.00		104	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*2.02*		µg/L	2.00		101	30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B032535 - SW-846 3510C										
LCS (B032535-BS1)				Prepared: 06/23/11 Analyzed: 06/25/11						
Aroclor-1016	0.55	0.20	µg/L	0.500		110	40-140			
Aroclor-1016 [2C]	0.52	0.20	µg/L	0.500		103	40-140			
Aroclor-1260	0.56	0.20	µg/L	0.500		112	40-140			
Aroclor-1260 [2C]	0.57	0.20	µg/L	0.500		113	40-140			
Surrogate: Decachlorobiphenyl	*2.16*		µg/L	2.00		108	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.34*		µg/L	2.00		117	30-150			
Surrogate: Tetrachloro-m-xylene	*2.09*		µg/L	2.00		104	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*2.00*		µg/L	2.00		100	30-150			
LCS Dup (B032535-BSD1)				Prepared: 06/23/11 Analyzed: 06/25/11						
Aroclor-1016	0.56	0.20	µg/L	0.500		112	40-140	2.26	20	
Aroclor-1016 [2C]	0.50	0.20	µg/L	0.500		100	40-140	2.87	20	
Aroclor-1260	0.53	0.20	µg/L	0.500		105	40-140	6.36	20	
Aroclor-1260 [2C]	0.53	0.20	µg/L	0.500		106	40-140	6.22	20	
Surrogate: Decachlorobiphenyl	*2.12*		µg/L	2.00		106	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.29*		µg/L	2.00		115	30-150			
Surrogate: Tetrachloro-m-xylene	*2.09*		µg/L	2.00		105	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*2.05*		µg/L	2.00		102	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Product/Solid	
Aroclor-1016	CT,NH,NY,ME,NC
Aroclor-1016 [2C]	CT,NH,NY,ME,NC
Aroclor-1221	CT,NH,NY,ME,NC
Aroclor-1221 [2C]	CT,NH,NY,ME,NC
Aroclor-1232	CT,NH,NY,ME,NC
Aroclor-1232 [2C]	CT,NH,NY,ME,NC
Aroclor-1242	CT,NH,NY,ME,NC
Aroclor-1242 [2C]	CT,NH,NY,ME,NC
Aroclor-1248	CT,NH,NY,ME,NC
Aroclor-1248 [2C]	CT,NH,NY,ME,NC
Aroclor-1254	CT,NH,NY,ME,NC
Aroclor-1254 [2C]	CT,NH,NY,ME,NC
Aroclor-1260	CT,NH,NY,ME,NC
Aroclor-1260 [2C]	CT,NH,NY,ME,NC
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,RI,NC,ME
Aroclor-1016 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1221	CT,NH,NY,RI,NC,ME
Aroclor-1221 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1232	CT,NH,NY,RI,NC,ME
Aroclor-1232 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1242	CT,NH,NY,RI,NC,ME
Aroclor-1242 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1248	CT,NH,NY,RI,NC,ME
Aroclor-1248 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1254	CT,NH,NY,RI,NC,ME
Aroclor-1254 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1260	CT,NH,NY,RI,NC,ME
Aroclor-1260 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1262	NC
Aroclor-1262 [2C]	NC
Aroclor-1268	NC
Aroclor-1268 [2C]	NC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2011
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2011
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2011
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

11F0743

39 SPRUCE ST, 2ND FLOOR
EAST LONGMEADOW, MA 01028

Page 1 of

Company Name: WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR, SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER AMHERST, MA
Sampled By: J. REAM

Telephone: (978) 557-8150
Project # 224189
Client PO #

DATA DELIVERY (check one):
☐ FAX ☑ EMAIL ☐ WEBSITE CLIENT
Fax #: gfranklin
Email: jhamel@woodardcurran.com
Format: ☑ EXCEL ☑ PDF ☐ GIS KEY
☐ OTHER

Proposal Provided? (For Billing purposes)
☐ yes _____ proposal date

State Form Required?
☐ yes ☐ no

ANALYSIS REQUESTED

Field ID	Sample Description	Lab #	Date Sampled Start Date/Time	Stop Date/Time	Composite	Grab	*Matrix Code	Conc. Code	PCB's (Soxhlet)	# of contai	**Preserva	~Cont.Code
01	WH-VBS-017		6/21/11	0915		✓	O	L	X			
02	WH-VBS-018			0940		✓	O	L	X			
03	WH-VBSD-019			0940		✓	O	L	X			
04	WH-VBSQ-020			1030		✓	O	L	X			
05	WH-VBS-021			1100		✓	O	L	X			
06	WH-VBS-022			1110		✓	O	L	X			
07	WH-VBS-023		↓	1120		✓	O	L	X			

~Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other SLATE

Client Comments:

Laboratory Comments: PCB's by USEPA 8082 via 3540C (Soxhlet)
R.L. ≤1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in **Matrix/Conc.** Code Box:
H - High; **M** - Medium; **L** - Low; **C** - Clean; **U** - Unknown

Relinquished by: (signature)	Date/Time: 6/21/11 1420
Received by: (signature)	Date/Time: 6/21 1420
Relinquished by: (signature)	Date/Time: 6/21 1540
Received by: (signature) 5.0°C	Date/Time: 6/21/11 1540

Turnaround **
☐ 7-Day
☐ 10-Day
☑ Other 5 DAY
RUSH * NO CHARGE
☐ *24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
* Require lab approval

Detection Limit Requirements
Regulations?
Data Enhancement Project/RCP? ☐ Y ☐ N
Special Requirements or DL's:

***Matrix Code:**
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other

****Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
O = Other
X = Na hydroxide
T = Na thiosulfate

** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

AIHA, NELAC & WBE/DBE Certified

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard + Curran **RECEIVED BY:** AB **DATE:** 6/21/11

1) Was the chain(s) of custody relinquished and signed? Yes No **No CoC Included**

2) Does the chain agree with the samples? Yes No

If not, explain:

3) Are all the samples in good condition? Yes No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank 5.0 °C Temperature °C by Temp gun _____

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber Water	2 (WH-VBSQ-20)	8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)	6	2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

Doc# 277

Rev. 1 May 2011

11F0743-01 WH-VBS-017

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	0.930	0.906055	2.61
Decachlorobiphenyl	0.868	1.02358	16.4

11F0743-02 WH-VBS-018

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.808	0.8824191	8.8
Tetrachloro-m-xylene	0.892	0.857881	3.9

11F0743-03 WH-VBSD-019

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.836	0.8863715	5.85
Tetrachloro-m-xylene	0.924	0.8890381	3.86

11F0743-04 WH-VBSQ-020

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.967	1.04406	7.66
Tetrachloro-m-xylene	1.86	1.80512	2.99

11F0743-05 WH-VBS-021

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	0.893	0.8591	3.87
Decachlorobiphenyl	0.838	0.90495	7.68

11F0743-06 WH-VBS-022

Analyte	Results		%RPD
Aroclor-1254	0.16	0.1437238	10.7
Surrogates			
Tetrachloro-m-xylene	0.952	0.9142191	4.05
Decachlorobiphenyl	0.876	0.944062	7.48

11F0743-07 WH-VBS-023

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.817	0.8545409	4.49
Tetrachloro-m-xylene	0.881	0.8558863	2.89

B032450-BLK1 Blank

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.960	1.027565	6.8
Tetrachloro-m-xylene	0.968	0.928435	4.17

B032450-BS1 LCS

Analyte	Results		%RPD
Aroclor-1016	0.23	0.220635	4.16
Aroclor-1260	0.24	0.23693	1.29
Surrogates			
Tetrachloro-m-xylene	1.01	0.97048	3.99
Decachlorobiphenyl	0.931	0.985405	5.68

B032450-BSD1 LCS Dup

Analyte	Results		%RPD
Aroclor-1016	0.26	0.229245	12.6
Aroclor-1260	0.24	0.254295	5.78
Surrogates			

Decachlorobiphenyl	0.979	1.04781	6.79
Tetrachloro-m-xylene	1.01	0.971535	3.88

B032450-MS1 Matrix Spike

Analyte		Results	%RPD
Aroclor-1016	0.19	0.2124	11.1
Aroclor-1260	0.21	0.2109091	0.432
Surrogates			
Decachlorobiphenyl	0.810	0.8915773	9.59
Tetrachloro-m-xylene	0.853	0.832059	2.49

B032450-MSD1 Matrix Spike Dup

Analyte		Results	%RPD
Aroclor-1260	0.25	0.24029	3.96
Aroclor-1016	0.22	0.231125	4.93
Surrogates			
Decachlorobiphenyl	0.905	0.984345	8.4
Tetrachloro-m-xylene	0.939	0.9105	3.08

B032535-BLK1 Blank

Analyte		Results	%RPD
Surrogates			
Tetrachloro-m-xylene	2.07	2.02269	2.31
Decachlorobiphenyl	2.07	2.24552	8.13

B032535-BS1 LCS

Analyte		Results	%RPD
Aroclor-1016	0.55	0.51514	6.55
Aroclor-1260	0.56	0.56552	0.981
Surrogates			
Decachlorobiphenyl	2.16	2.33956	7.98
Tetrachloro-m-xylene	2.09	2.00307	4.25

B032535-BSD1 LCS Dup

Analyte		Results	%RPD
Aroclor-1016	0.56	0.50058	11.2
Aroclor-1260	0.53	0.5314	0.264
Surrogates			
Tetrachloro-m-xylene	2.09	2.04775	2.04
Decachlorobiphenyl	2.12	2.29234	7.81

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11F0743
Project Location: UMass Webster (Amherst, MA)	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11F0743-01 thru 11F0743-07

Matrices: Product/Solid Water

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes ☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes ☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes ☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes ☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes ☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes ☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☑ Yes ☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: M Erickson Position: Laboratory Director

Printed Name: Michael A. Erickson Date: 06/27/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

June 29, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: UMass - Webster Amherst, MA
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11F0790

Enclosed are results of analyses for samples received by the laboratory on June 22, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 6/29/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11F0790

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: UMass - Webster Amherst, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VBC-024	11F0790-01	Concrete		SW-846 8082A	
WH-VBC-025	11F0790-02	Concrete		SW-846 8082A	
WH-VBC-026	11F0790-03	Concrete		SW-846 8082A	
WH-VBC-027	11F0790-04	Concrete		SW-846 8082A	
WH-VBC-028	11F0790-05	Concrete		SW-846 8082A	
WH-VBC-029	11F0790-06	Concrete		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8082A

Qualifications:

Matrix spike and spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.

Analyte & Samples(s) Qualified:

Aroclor-1016, Aroclor-1016 [2C], Aroclor-1260, Aroclor-1260 [2C]

B032519-MS1, B032519-MSD1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Michael A. Erickson
Laboratory Director

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass - Webster Amherst, MA
Sample Description:
Work Order: 11F0790

Date Received: 6/22/2011

Field Sample #: WH-VBC-024
Sampled: 6/22/2011 11:30

Sample ID: 11F0790-01

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.48	mg/Kg	5		SW-846 8082A	6/22/11	6/25/11 10:08	PJG
Aroclor-1221 [1]	ND	0.48	mg/Kg	5		SW-846 8082A	6/22/11	6/25/11 10:08	PJG
Aroclor-1232 [1]	ND	0.48	mg/Kg	5		SW-846 8082A	6/22/11	6/25/11 10:08	PJG
Aroclor-1242 [1]	ND	0.48	mg/Kg	5		SW-846 8082A	6/22/11	6/25/11 10:08	PJG
Aroclor-1248 [1]	ND	0.48	mg/Kg	5		SW-846 8082A	6/22/11	6/25/11 10:08	PJG
Aroclor-1254 [2]	4.9	0.48	mg/Kg	5		SW-846 8082A	6/22/11	6/25/11 10:08	PJG
Aroclor-1260 [1]	ND	0.48	mg/Kg	5		SW-846 8082A	6/22/11	6/25/11 10:08	PJG
Aroclor-1262 [1]	ND	0.48	mg/Kg	5		SW-846 8082A	6/22/11	6/25/11 10:08	PJG
Aroclor-1268 [1]	ND	0.48	mg/Kg	5		SW-846 8082A	6/22/11	6/25/11 10:08	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	98.9	30-150		6/25/11 10:08
Decachlorobiphenyl [2]	98.6	30-150		6/25/11 10:08
Tetrachloro-m-xylene [1]	97.1	30-150		6/25/11 10:08
Tetrachloro-m-xylene [2]	110	30-150		6/25/11 10:08

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass - Webster Amherst, MA
Sample Description:
Work Order: 11F0790

Date Received: 6/22/2011

Field Sample #: WH-VBC-025
Sampled: 6/22/2011 11:35

Sample ID: 11F0790-02

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:22	PJG
Aroclor-1221 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:22	PJG
Aroclor-1232 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:22	PJG
Aroclor-1242 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:22	PJG
Aroclor-1248 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:22	PJG
Aroclor-1254 [2]	2.1	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:22	PJG
Aroclor-1260 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:22	PJG
Aroclor-1262 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:22	PJG
Aroclor-1268 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:22	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	76.0	30-150		6/25/11 10:22
Decachlorobiphenyl [2]	75.0	30-150		6/25/11 10:22
Tetrachloro-m-xylene [1]	67.7	30-150		6/25/11 10:22
Tetrachloro-m-xylene [2]	76.1	30-150		6/25/11 10:22

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass - Webster Amherst, MA Sample Description: Work Order: 11F0790

Date Received: 6/22/2011

Field Sample #: WH-VBC-026 Sampled: 6/22/2011 12:05

Sample ID: 11F0790-03

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:26	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:26	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:26	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:26	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:26	PJG
Aroclor-1254 [2]	0.49	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:26	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:26	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:26	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:26	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	90.4	30-150		6/24/11 21:26
Decachlorobiphenyl [2]	90.5	30-150		6/24/11 21:26
Tetrachloro-m-xylene [1]	92.3	30-150		6/24/11 21:26
Tetrachloro-m-xylene [2]	98.4	30-150		6/24/11 21:26

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass - Webster Amherst, MA
Sample Description:
Work Order: 11F0790

Date Received: 6/22/2011

Field Sample #: WH-VBC-027
Sampled: 6/22/2011 12:10

Sample ID: 11F0790-04

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.17	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:36	PJG
Aroclor-1221 [1]	ND	0.17	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:36	PJG
Aroclor-1232 [1]	ND	0.17	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:36	PJG
Aroclor-1242 [1]	ND	0.17	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:36	PJG
Aroclor-1248 [1]	ND	0.17	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:36	PJG
Aroclor-1254 [2]	1.6	0.17	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:36	PJG
Aroclor-1260 [1]	ND	0.17	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:36	PJG
Aroclor-1262 [1]	ND	0.17	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:36	PJG
Aroclor-1268 [1]	ND	0.17	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:36	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	111	30-150		6/25/11 10:36
Decachlorobiphenyl [2]	108	30-150		6/25/11 10:36
Tetrachloro-m-xylene [1]	88.4	30-150		6/25/11 10:36
Tetrachloro-m-xylene [2]	97.1	30-150		6/25/11 10:36

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass - Webster Amherst, MA Sample Description: Work Order: 11F0790

Date Received: 6/22/2011

Field Sample #: WH-VBC-028 Sampled: 6/22/2011 12:20

Sample ID: 11F0790-05

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:54	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:54	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:54	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:54	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:54	PJG
Aroclor-1254 [2]	1.1	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:54	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:54	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:54	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/22/11	6/24/11 21:54	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	86.9	30-150		6/24/11 21:54
Decachlorobiphenyl [2]	88.2	30-150		6/24/11 21:54
Tetrachloro-m-xylene [1]	91.4	30-150		6/24/11 21:54
Tetrachloro-m-xylene [2]	97.3	30-150		6/24/11 21:54

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass - Webster Amherst, MA
Sample Description:
Work Order: 11F0790

Date Received: 6/22/2011

Field Sample #: WH-VBC-029
Sampled: 6/22/2011 12:25

Sample ID: 11F0790-06

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:50	PJG
Aroclor-1221 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:50	PJG
Aroclor-1232 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:50	PJG
Aroclor-1242 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:50	PJG
Aroclor-1248 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:50	PJG
Aroclor-1254 [2]	1.4	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:50	PJG
Aroclor-1260 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:50	PJG
Aroclor-1262 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:50	PJG
Aroclor-1268 [1]	ND	0.19	mg/Kg	2		SW-846 8082A	6/22/11	6/25/11 10:50	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	98.5	30-150		6/25/11 10:50
Decachlorobiphenyl [2]	96.4	30-150		6/25/11 10:50
Tetrachloro-m-xylene [1]	77.3	30-150		6/25/11 10:50
Tetrachloro-m-xylene [2]	85.6	30-150		6/25/11 10:50

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
11F0790-01 [WH-VBC-024]	B032519	2.10	10.0	06/22/11
11F0790-02 [WH-VBC-025]	B032519	2.10	10.0	06/22/11
11F0790-03 [WH-VBC-026]	B032519	2.20	10.0	06/22/11
11F0790-04 [WH-VBC-027]	B032519	2.30	10.0	06/22/11
11F0790-05 [WH-VBC-028]	B032519	2.20	10.0	06/22/11
11F0790-06 [WH-VBC-029]	B032519	2.10	10.0	06/22/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B032519 - SW-846 3540C										
Blank (B032519-BLK1)				Prepared: 06/22/11 Analyzed: 06/24/11						
Aroclor-1016	ND	0.10	mg/Kg							
Aroclor-1016 [2C]	ND	0.10	mg/Kg							
Aroclor-1221	ND	0.10	mg/Kg							
Aroclor-1221 [2C]	ND	0.10	mg/Kg							
Aroclor-1232	ND	0.10	mg/Kg							
Aroclor-1232 [2C]	ND	0.10	mg/Kg							
Aroclor-1242	ND	0.10	mg/Kg							
Aroclor-1242 [2C]	ND	0.10	mg/Kg							
Aroclor-1248	ND	0.10	mg/Kg							
Aroclor-1248 [2C]	ND	0.10	mg/Kg							
Aroclor-1254	ND	0.10	mg/Kg							
Aroclor-1254 [2C]	ND	0.10	mg/Kg							
Aroclor-1260	ND	0.10	mg/Kg							
Aroclor-1260 [2C]	ND	0.10	mg/Kg							
Aroclor-1262	ND	0.10	mg/Kg							
Aroclor-1262 [2C]	ND	0.10	mg/Kg							
Aroclor-1268	ND	0.10	mg/Kg							
Aroclor-1268 [2C]	ND	0.10	mg/Kg							
Surrogate: Decachlorobiphenyl	*1.31*		mg/Kg	1.00		131	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.26*		mg/Kg	1.00		126	30-150			
Surrogate: Tetrachloro-m-xylene	*1.10*		mg/Kg	1.00		110	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.16*		mg/Kg	1.00		116	30-150			
LCS (B032519-BS1)				Prepared: 06/22/11 Analyzed: 06/24/11						
Aroclor-1016	0.25	0.10	mg/Kg	0.250		99.6	40-140			
Aroclor-1016 [2C]	0.25	0.10	mg/Kg	0.250		99.4	40-140			
Aroclor-1260	0.23	0.10	mg/Kg	0.250		93.3	40-140			
Aroclor-1260 [2C]	0.26	0.10	mg/Kg	0.250		106	40-140			
Surrogate: Decachlorobiphenyl	*0.973*		mg/Kg	1.00		97.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.934*		mg/Kg	1.00		93.4	30-150			
Surrogate: Tetrachloro-m-xylene	*0.916*		mg/Kg	1.00		91.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.966*		mg/Kg	1.00		96.6	30-150			
LCS Dup (B032519-BSD1)				Prepared: 06/22/11 Analyzed: 06/24/11						
Aroclor-1016	0.22	0.10	mg/Kg	0.250		88.3	40-140	12.1	30	
Aroclor-1016 [2C]	0.27	0.10	mg/Kg	0.250		107	40-140	7.34	30	
Aroclor-1260	0.23	0.10	mg/Kg	0.250		92.8	40-140	0.468	30	
Aroclor-1260 [2C]	0.27	0.10	mg/Kg	0.250		107	40-140	1.22	30	
Surrogate: Decachlorobiphenyl	*0.979*		mg/Kg	1.00		97.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.947*		mg/Kg	1.00		94.7	30-150			
Surrogate: Tetrachloro-m-xylene	*0.945*		mg/Kg	1.00		94.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.01*		mg/Kg	1.00		101	30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B032519 - SW-846 3540C												
Matrix Spike (B032519-MS1)		**Source: 11F0790-01**		Prepared: 06/22/11 Analyzed: 06/24/11								
Aroclor-1016	1.5	0.087	mg/Kg	0.217	0.0	**681**	*	40-140				MS-21
Aroclor-1016 [2C]	1.1	0.087	mg/Kg	0.217	0.0	**491**	*	40-140				MS-21
Aroclor-1260	0.84	0.087	mg/Kg	0.217	0.0	**388**	*	40-140				MS-21
Aroclor-1260 [2C]	0.55	0.087	mg/Kg	0.217	0.0	**253**	*	40-140				MS-21
Surrogate: Decachlorobiphenyl	*0.744*		mg/Kg	0.870		85.5		30-150				
Surrogate: Decachlorobiphenyl [2C]	*0.753*		mg/Kg	0.870		86.6		30-150				
Surrogate: Tetrachloro-m-xylene	*0.778*		mg/Kg	0.870		89.5		30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*0.829*		mg/Kg	0.870		95.4		30-150				
Matrix Spike Dup (B032519-MSD1)		**Source: 11F0790-01**		Prepared: 06/22/11 Analyzed: 06/24/11								
Aroclor-1016	2.5	0.087	mg/Kg	0.217	0.0	**1150**	*	40-140	**50.9**	*	50	MS-21
Aroclor-1016 [2C]	1.8	0.087	mg/Kg	0.217	0.0	**810**	*	40-140	49.1		50	MS-21
Aroclor-1260	1.4	0.087	mg/Kg	0.217	0.0	**663**	*	40-140	**52.3**	*	50	MS-21
Aroclor-1260 [2C]	0.92	0.087	mg/Kg	0.217	0.0	**423**	*	40-140	**50.3**	*	50	MS-21
Surrogate: Decachlorobiphenyl	*0.744*		mg/Kg	0.870		85.6		30-150				
Surrogate: Decachlorobiphenyl [2C]	*0.725*		mg/Kg	0.870		83.3		30-150				
Surrogate: Tetrachloro-m-xylene	*0.754*		mg/Kg	0.870		86.7		30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*0.802*		mg/Kg	0.870		92.3		30-150				

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
MS-21	Matrix spike and spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Product/Solid	
Aroclor-1016	CT,NH,NY,ME,NC
Aroclor-1016 [2C]	CT,NH,NY,ME,NC
Aroclor-1221	CT,NH,NY,ME,NC
Aroclor-1221 [2C]	CT,NH,NY,ME,NC
Aroclor-1232	CT,NH,NY,ME,NC
Aroclor-1232 [2C]	CT,NH,NY,ME,NC
Aroclor-1242	CT,NH,NY,ME,NC
Aroclor-1242 [2C]	CT,NH,NY,ME,NC
Aroclor-1248	CT,NH,NY,ME,NC
Aroclor-1248 [2C]	CT,NH,NY,ME,NC
Aroclor-1254	CT,NH,NY,ME,NC
Aroclor-1254 [2C]	CT,NH,NY,ME,NC
Aroclor-1260	CT,NH,NY,ME,NC
Aroclor-1260 [2C]	CT,NH,NY,ME,NC

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2011
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2011
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2011
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 SPRUCE ST, 2ND FLOOR
EAST LONGMEADOW, MA 01028

CHAIN OF CUSTODY RECORD

11F0790

Page 1 of

Company Name: WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR, SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER AMHERST, MA
Sampled By: J. REAM

Telephone: (978) 557-8150
Project # 224189
Client PO #

DATA DELIVERY (check one):
☐ FAX ☑ EMAIL ☐ WEBSITE CLIENT
Fax #: gfranklin@woodardcurran.com
Email: jhamel
Format: ☑ EXCEL ☑ PDF ☐ GIS KEY
☐ OTHER

Proposal Provided? (For Billing purposes)
☐ yes _____ proposal date

State Form Required?
☐ yes ☐ no

ANALYSIS REQUESTED

Field ID	Sample Description	Lab #	Date Sampled Start Date/Time	Stop Date/Time	Composite	Grab	*Matrix Code	Conc. Code	PCBs (Soxhlet)	# of containers
01	WH-VBC-024		6/22/11	1130		✓	O	L	X	
02	WH-VBC-025			1135		✓	O	L	X	
03	WH-VBC-026			1205		✓	O	L	X	
04	WH-VBC-027			1210		✓	O	L	X	
05	WH-VBC-028			1220		✓	O	L	X	
06	WH-VBC-029			1225		✓	O	L	X	

~Cont. Code: A=amber glass, G=glass, P=plastic, ST=sterile, V= vial, S=summa can, T=tedlar bag, O=Other CONCRETE

Client Comments:

Laboratory Comments: PCB's by USEPA 8082 by Method 3540C (Soxhlet)
R.L. ≤ 1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in **Matrix/Conc.** Code Box:
H - High; **M** - Medium; **L** - Low; **C** - Clean; **U** - Unknown

Relinquished by: (signature)	Date/Time:
[signature]	6/22/11 1445
Received by: (signature) [signature]	Date/Time: 6/22/11 1445
Relinquished by: (signature) [signature]	Date/Time: 6/22/11 1550
Received by: (signature) 5.0°	Date/Time: 6/22/11 1550

Turnaround **
☐ 7-Day
☐ 10-Day
☑ Other 5 DAY
RUSH *NO CHARGE
☐ *24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
* Require lab approval

Detection Limit Requirements
Regulations?
Data Enhancement Project/RCP? ☐ Y ☐ N
Special Requirements or DL's:

***Matrix Code:**
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other CONCRETE

****Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
O = Other
X = Na hydroxide
T = Na thiosulfate

** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

AIHA, NELAC & WBE/DBE Certified

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard & Curran RECEIVED BY: CEL DATE: 6/22/11

1) Was the chain(s) of custody relinquished and signed? Yes No No CoC Included

2) Does the chain agree with the samples? Yes No

If not, explain:

3) Are all the samples in good condition? Yes No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank 5.6 Temperature °C by Temp gun

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified Date Time

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified Date Time

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)	6	2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl # Methanol

Bisulfate # DI Water

Thiosulfate Unpreserved

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A

Do all samples have the proper Base pH: Yes No N/A

Doc# 277

Rev. 1 May 2011

11F0790-01 WH-VBC-024

Analyte	Results		%RPD
Aroclor-1254 [2C]	4.9	3.877929	23.3
Surrogates			
Decachlorobiphenyl	0.942	0.9386429	0.357
Tetrachloro-m-xylene	0.925	1.044286	12.1

11F0790-02 WH-VBC-025

Analyte	Results		%RPD
Aroclor-1254 [2C]	2.1	1.835181	13.5
Surrogates			
Decachlorobiphenyl	0.724	0.7141905	1.36
Tetrachloro-m-xylene	0.645	0.7243334	11.6

11F0790-03 WH-VBC-026

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.49	0.3964045	21.1
Surrogates			
Tetrachloro-m-xylene	0.839	0.8949273	6.45
Decachlorobiphenyl	0.822	0.8229	0.109

11F0790-04 WH-VBC-027

Analyte	Results		%RPD
Aroclor-1254 [2C]	1.6	1.233183	25.9
Surrogates			
Tetrachloro-m-xylene	0.768	0.8445565	9.5
Decachlorobiphenyl	0.966	0.9421826	2.5

11F0790-05 WH-VBC-028

Analyte	Results		%RPD
Aroclor-1254 [2C]	1.1	0.8984591	20.2
Surrogates			
Decachlorobiphenyl	0.790	0.8017	1.47
Tetrachloro-m-xylene	0.831	0.8844545	6.23

11F0790-06 WH-VBC-029

Analyte	Results		%RPD
Aroclor-1254 [2C]	1.4	1.00881	32.5
Surrogates			
Decachlorobiphenyl	0.938	0.9182857	2.12
Tetrachloro-m-xylene	0.736	0.8152381	10.2

B032519-BLK1 Blank

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	1.10	1.158125	5.15
Decachlorobiphenyl	1.31	1.25826	4.03

B032519-BS1 LCS

Analyte	Results		%RPD
Aroclor-1016	0.25	0.24842	0.634
Aroclor-1260	0.23	0.263815	13.7
Surrogates			
Decachlorobiphenyl	0.973	0.933695	4.12
Tetrachloro-m-xylene	0.916	0.965755	5.29

B032519-BSD1 LCS Dup

Analyte	Results		%RPD
Aroclor-1260	0.23	0.26704	14.9
Aroclor-1016	0.22	0.26735	19.4
Surrogates			
Decachlorobiphenyl	0.979	0.946765	3.35

Tetrachloro-m-xylene	0.945	1.01044	6.69

B032519-MS1 Matrix Spike

Analyte	Results		%RPD
Aroclor-1260	0.84	0.5493783	41.8
Aroclor-1016	1.5	1.067517	33.7
Surrogates			
Decachlorobiphenyl	0.744	0.7532087	1.23
Tetrachloro-m-xylene	0.778	0.8291957	6.37

B032519-MSD1 Matrix Spike Dup

Analyte	Results		%RPD
Aroclor-1016	2.5	1.761296	34.7
Aroclor-1260	1.4	0.9189218	41.5
Surrogates			
Tetrachloro-m-xylene	0.754	0.8023217	6.21
Decachlorobiphenyl	0.744	0.7245087	2.65

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11F0790
Project Location: UMass - Webster Amherst, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11F0790-01 thru 11F0790-06

Matrices: Product/Solid

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes	☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes	☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes	☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes	☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes	☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☐ Yes	☑ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: M Erickson Position: Laboratory Director

Printed Name: Michael A. Erickson Date: 06/28/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

June 30, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: UMASS-Webster, Amherst, MA
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11F0837

Enclosed are results of analyses for samples received by the laboratory on June 23, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 6/30/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11F0837

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: UMASS-Webster, Amherst, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VBC-030	11F0837-01	Product/Solid		SW-846 8082A	
WH-VBC-031	11F0837-02	Product/Solid		SW-846 8082A	
WH-VBC-032	11F0837-03	Product/Solid		SW-846 8082A	
WH-VBC-033	11F0837-04	Product/Solid		SW-846 8082A	
WH-VBC-034	11F0837-05	Product/Solid		SW-846 8082A	
WH-VBC-035	11F0837-06	Product/Solid		SW-846 8082A	
WH-VBC-036	11F0837-07	Product/Solid		SW-846 8082A	
WH-VBC-037	11F0837-08	Product/Solid		SW-846 8082A	
WH-VBC-038	11F0837-09	Product/Solid		SW-846 8082A	
WH-VBCD-039	11F0837-10	Product/Solid		SW-846 8082A	
WH-VBCQ-040	11F0837-11	Water		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Michael A. Erickson
Laboratory Director

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster, Amherst, MA Sample Description: Work Order: 11F0837

Date Received: 6/23/2011

Field Sample #: WH-VBC-030 Sampled: 6/23/2011 07:35

Sample ID: 11F0837-01

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/24/11 23:54	PJG
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/24/11 23:54	PJG
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/24/11 23:54	PJG
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/24/11 23:54	PJG
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/24/11 23:54	PJG
Aroclor-1254 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/24/11 23:54	PJG
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/24/11 23:54	PJG
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/24/11 23:54	PJG
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/24/11 23:54	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	97.6	30-150		6/24/11 23:54
Decachlorobiphenyl [2]	107	30-150		6/24/11 23:54
Tetrachloro-m-xylene [1]	108	30-150		6/24/11 23:54
Tetrachloro-m-xylene [2]	102	30-150		6/24/11 23:54

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster, Amherst, MA
Sample Description:
Work Order: 11F0837

Date Received: 6/23/2011

Field Sample #: WH-VBC-031
Sampled: 6/23/2011 09:20

Sample ID: 11F0837-02

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:10	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:10	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:10	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:10	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:10	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:10	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:10	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:10	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:10	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	99.9	30-150		6/25/11 0:10
Decachlorobiphenyl [2]	103	30-150		6/25/11 0:10
Tetrachloro-m-xylene [1]	109	30-150		6/25/11 0:10
Tetrachloro-m-xylene [2]	105	30-150		6/25/11 0:10

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster, Amherst, MA
Sample Description:
Work Order: 11F0837

Date Received: 6/23/2011

Field Sample #: WH-VBC-032
Sampled: 6/23/2011 09:30

Sample ID: 11F0837-03

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:25	PJG
Aroclor-1221 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:25	PJG
Aroclor-1232 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:25	PJG
Aroclor-1242 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:25	PJG
Aroclor-1248 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:25	PJG
Aroclor-1254 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:25	PJG
Aroclor-1260 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:25	PJG
Aroclor-1262 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:25	PJG
Aroclor-1268 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:25	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	96.6	30-150		6/25/11 0:25
Decachlorobiphenyl [2]	100	30-150		6/25/11 0:25
Tetrachloro-m-xylene [1]	108	30-150		6/25/11 0:25
Tetrachloro-m-xylene [2]	102	30-150		6/25/11 0:25

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster, Amherst, MA Sample Description: Work Order: 11F0837

Date Received: 6/23/2011

Field Sample #: WH-VBC-033 Sampled: 6/23/2011 09:45

Sample ID: 11F0837-04

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:41	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:41	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:41	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:41	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:41	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:41	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:41	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:41	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:41	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	86.6	30-150		6/25/11 0:41
Decachlorobiphenyl [2]	90.0	30-150		6/25/11 0:41
Tetrachloro-m-xylene [1]	99.0	30-150		6/25/11 0:41
Tetrachloro-m-xylene [2]	93.2	30-150		6/25/11 0:41

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster, Amherst, MA Sample Description: Work Order: 11F0837

Date Received: 6/23/2011

Field Sample #: WH-VBC-034 Sampled: 6/23/2011 10:05

Sample ID: 11F0837-05

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:56	PJG
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:56	PJG
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:56	PJG
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:56	PJG
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:56	PJG
Aroclor-1254 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:56	PJG
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:56	PJG
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:56	PJG
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 0:56	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	84.1	30-150		6/25/11 0:56
Decachlorobiphenyl [2]	86.8	30-150		6/25/11 0:56
Tetrachloro-m-xylene [1]	99.0	30-150		6/25/11 0:56
Tetrachloro-m-xylene [2]	94.2	30-150		6/25/11 0:56

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster, Amherst, MA
Sample Description:
Work Order: 11F0837

Date Received: 6/23/2011

Field Sample #: WH-VBC-035
Sampled: 6/23/2011 10:20

Sample ID: 11F0837-06

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:12	PJG
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:12	PJG
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:12	PJG
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:12	PJG
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:12	PJG
Aroclor-1254 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:12	PJG
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:12	PJG
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:12	PJG
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:12	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	84.1	30-150		6/25/11 1:12
Decachlorobiphenyl [2]	87.8	30-150		6/25/11 1:12
Tetrachloro-m-xylene [1]	93.8	30-150		6/25/11 1:12
Tetrachloro-m-xylene [2]	91.4	30-150		6/25/11 1:12

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster, Amherst, MA
Sample Description:
Work Order: 11F0837

Date Received: 6/23/2011

Field Sample #: WH-VBC-036
Sampled: 6/23/2011 10:35

Sample ID: 11F0837-07

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:28	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:28	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:28	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:28	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:28	PJG
Aroclor-1254 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:28	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:28	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:28	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:28	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	99.8	30-150		6/25/11 1:28
Decachlorobiphenyl [2]	103	30-150		6/25/11 1:28
Tetrachloro-m-xylene [1]	82.3	30-150		6/25/11 1:28
Tetrachloro-m-xylene [2]	77.5	30-150		6/25/11 1:28

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster, Amherst, MA
Sample Description:
Work Order: 11F0837

Date Received: 6/23/2011

Field Sample #: WH-VBC-037
Sampled: 6/23/2011 12:50

Sample ID: 11F0837-08

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:43	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:43	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:43	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:43	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:43	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:43	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:43	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:43	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:43	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	103	30-150		6/25/11 1:43
Decachlorobiphenyl [2]	105	30-150		6/25/11 1:43
Tetrachloro-m-xylene [1]	110	30-150		6/25/11 1:43
Tetrachloro-m-xylene [2]	105	30-150		6/25/11 1:43

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster, Amherst, MA Sample Description: Work Order: 11F0837

Date Received: 6/23/2011

Field Sample #: WH-VBC-038 Sampled: 6/23/2011 13:00

Sample ID: 11F0837-09

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:59	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:59	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:59	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:59	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:59	PJG
Aroclor-1254 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:59	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:59	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:59	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 1:59	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	106	30-150		6/25/11 1:59
Decachlorobiphenyl [2]	107	30-150		6/25/11 1:59
Tetrachloro-m-xylene [1]	110	30-150		6/25/11 1:59
Tetrachloro-m-xylene [2]	107	30-150		6/25/11 1:59

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster, Amherst, MA
Sample Description:
Work Order: 11F0837

Date Received: 6/23/2011

Field Sample #: WH-VBCD-039
Sampled: 6/23/2011 13:00

Sample ID: 11F0837-10

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 2:14	PJG
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 2:14	PJG
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 2:14	PJG
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 2:14	PJG
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 2:14	PJG
Aroclor-1254 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 2:14	PJG
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 2:14	PJG
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 2:14	PJG
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	6/23/11	6/25/11 2:14	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	104	30-150		6/25/11 2:14
Decachlorobiphenyl [2]	110	30-150		6/25/11 2:14
Tetrachloro-m-xylene [1]	110	30-150		6/25/11 2:14
Tetrachloro-m-xylene [2]	104	30-150		6/25/11 2:14

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster, Amherst, MA Sample Description: Work Order: 11F0837

Date Received: 6/23/2011

Field Sample #: WH-VBCQ-040 Sampled: 6/23/2011 13:15

Sample ID: 11F0837-11

Sample Matrix: Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/24/11	6/25/11 18:39	PJG
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/24/11	6/25/11 18:39	PJG
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/24/11	6/25/11 18:39	PJG
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/24/11	6/25/11 18:39	PJG
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/24/11	6/25/11 18:39	PJG
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/24/11	6/25/11 18:39	PJG
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/24/11	6/25/11 18:39	PJG
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/24/11	6/25/11 18:39	PJG
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/24/11	6/25/11 18:39	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	49.0	30-150		6/25/11 18:39
Decachlorobiphenyl [2]	53.8	30-150		6/25/11 18:39
Tetrachloro-m-xylene [1]	91.2	30-150		6/25/11 18:39
Tetrachloro-m-xylene [2]	89.2	30-150		6/25/11 18:39

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
11F0837-01 [WH-VBC-030]	B032607	2.10	10.0	06/23/11
11F0837-02 [WH-VBC-031]	B032607	2.00	10.0	06/23/11
11F0837-03 [WH-VBC-032]	B032607	2.30	10.0	06/23/11
11F0837-04 [WH-VBC-033]	B032607	2.00	10.0	06/23/11
11F0837-05 [WH-VBC-034]	B032607	2.10	10.0	06/23/11
11F0837-06 [WH-VBC-035]	B032607	2.10	10.0	06/23/11
11F0837-07 [WH-VBC-036]	B032607	2.20	10.0	06/23/11
11F0837-08 [WH-VBC-037]	B032607	2.00	10.0	06/23/11
11F0837-09 [WH-VBC-038]	B032607	2.20	10.0	06/23/11
11F0837-10 [WH-VBCD-039]	B032607	2.20	10.0	06/23/11

Prep Method: SW-846 3510C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
11F0837-11 [WH-VBCQ-040]	B032669	1000	10.0	06/24/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B032607 - SW-846 3540C										
Blank (B032607-BLK1)				Prepared: 06/23/11 Analyzed: 06/24/11						
Aroclor-1016	ND	0.10	mg/Kg							
Aroclor-1016 [2C]	ND	0.10	mg/Kg							
Aroclor-1221	ND	0.10	mg/Kg							
Aroclor-1221 [2C]	ND	0.10	mg/Kg							
Aroclor-1232	ND	0.10	mg/Kg							
Aroclor-1232 [2C]	ND	0.10	mg/Kg							
Aroclor-1242	ND	0.10	mg/Kg							
Aroclor-1242 [2C]	ND	0.10	mg/Kg							
Aroclor-1248	ND	0.10	mg/Kg							
Aroclor-1248 [2C]	ND	0.10	mg/Kg							
Aroclor-1254	ND	0.10	mg/Kg							
Aroclor-1254 [2C]	ND	0.10	mg/Kg							
Aroclor-1260	ND	0.10	mg/Kg							
Aroclor-1260 [2C]	ND	0.10	mg/Kg							
Aroclor-1262	ND	0.10	mg/Kg							
Aroclor-1262 [2C]	ND	0.10	mg/Kg							
Aroclor-1268	ND	0.10	mg/Kg							
Aroclor-1268 [2C]	ND	0.10	mg/Kg							
Surrogate: Decachlorobiphenyl	*0.952*		mg/Kg	1.00		95.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.992*		mg/Kg	1.00		99.2	30-150			
Surrogate: Tetrachloro-m-xylene	*1.04*		mg/Kg	1.00		104	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.975*		mg/Kg	1.00		97.5	30-150			
LCS (B032607-BS1)				Prepared: 06/23/11 Analyzed: 06/24/11						
Aroclor-1016	0.29	0.10	mg/Kg	0.250		117	40-140			
Aroclor-1016 [2C]	0.25	0.10	mg/Kg	0.250		100	40-140			
Aroclor-1260	0.25	0.10	mg/Kg	0.250		99.5	40-140			
Aroclor-1260 [2C]	0.25	0.10	mg/Kg	0.250		98.8	40-140			
Surrogate: Decachlorobiphenyl	*0.878*		mg/Kg	1.00		87.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.902*		mg/Kg	1.00		90.2	30-150			
Surrogate: Tetrachloro-m-xylene	*1.06*		mg/Kg	1.00		106	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.02*		mg/Kg	1.00		102	30-150			
LCS Dup (B032607-BSD1)				Prepared: 06/23/11 Analyzed: 06/24/11						
Aroclor-1016	0.27	0.10	mg/Kg	0.250		109	40-140	7.38	30	
Aroclor-1016 [2C]	0.25	0.10	mg/Kg	0.250		98.4	40-140	1.73	30	
Aroclor-1260	0.24	0.10	mg/Kg	0.250		97.7	40-140	1.86	30	
Aroclor-1260 [2C]	0.25	0.10	mg/Kg	0.250		101	40-140	2.09	30	
Surrogate: Decachlorobiphenyl	*0.906*		mg/Kg	1.00		90.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.917*		mg/Kg	1.00		91.7	30-150			
Surrogate: Tetrachloro-m-xylene	*1.03*		mg/Kg	1.00		103	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.973*		mg/Kg	1.00		97.3	30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B032669 - SW-846 3510C										
Blank (B032669-BLK1)				Prepared: 06/24/11 Analyzed: 06/25/11						
Aroclor-1016	ND	0.040	µg/L							
Aroclor-1016 [2C]	ND	0.040	µg/L							
Aroclor-1221	ND	0.040	µg/L							
Aroclor-1221 [2C]	ND	0.040	µg/L							
Aroclor-1232	ND	0.040	µg/L							
Aroclor-1232 [2C]	ND	0.040	µg/L							
Aroclor-1242	ND	0.040	µg/L							
Aroclor-1242 [2C]	ND	0.040	µg/L							
Aroclor-1248	ND	0.040	µg/L							
Aroclor-1248 [2C]	ND	0.040	µg/L							
Aroclor-1254	ND	0.040	µg/L							
Aroclor-1254 [2C]	ND	0.040	µg/L							
Aroclor-1260	ND	0.040	µg/L							
Aroclor-1260 [2C]	ND	0.040	µg/L							
Aroclor-1262	ND	0.040	µg/L							
Aroclor-1262 [2C]	ND	0.040	µg/L							
Aroclor-1268	ND	0.040	µg/L							
Aroclor-1268 [2C]	ND	0.040	µg/L							
Surrogate: Decachlorobiphenyl	*0.461*		µg/L	0.400		115	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.498*		µg/L	0.400		124	30-150			
Surrogate: Tetrachloro-m-xylene	*0.441*		µg/L	0.400		110	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.425*		µg/L	0.400		106	30-150			
LCS (B032669-BS1)				Prepared: 06/24/11 Analyzed: 06/25/11						
Aroclor-1016	0.48	0.20	µg/L	0.500		96.6	40-140			
Aroclor-1016 [2C]	0.59	0.20	µg/L	0.500		118	40-140			
Aroclor-1260	0.58	0.20	µg/L	0.500		115	40-140			
Aroclor-1260 [2C]	0.56	0.20	µg/L	0.500		112	40-140			
Surrogate: Decachlorobiphenyl	*2.34*		µg/L	2.00		117	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.54*		µg/L	2.00		127	30-150			
Surrogate: Tetrachloro-m-xylene	*2.51*		µg/L	2.00		125	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*2.43*		µg/L	2.00		121	30-150			
LCS Dup (B032669-BSD1)				Prepared: 06/24/11 Analyzed: 06/25/11						
Aroclor-1016	0.51	0.20	µg/L	0.500		102	40-140	5.38	20	
Aroclor-1016 [2C]	0.52	0.20	µg/L	0.500		104	40-140	12.9	20	
Aroclor-1260	0.56	0.20	µg/L	0.500		113	40-140	1.96	20	
Aroclor-1260 [2C]	0.54	0.20	µg/L	0.500		109	40-140	2.99	20	
Surrogate: Decachlorobiphenyl	*2.32*		µg/L	2.00		116	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.52*		µg/L	2.00		126	30-150			
Surrogate: Tetrachloro-m-xylene	*2.41*		µg/L	2.00		120	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*2.32*		µg/L	2.00		116	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Product/Solid	
Aroclor-1016	CT,NH,NY,ME,NC
Aroclor-1016 [2C]	CT,NH,NY,ME,NC
Aroclor-1221	CT,NH,NY,ME,NC
Aroclor-1221 [2C]	CT,NH,NY,ME,NC
Aroclor-1232	CT,NH,NY,ME,NC
Aroclor-1232 [2C]	CT,NH,NY,ME,NC
Aroclor-1242	CT,NH,NY,ME,NC
Aroclor-1242 [2C]	CT,NH,NY,ME,NC
Aroclor-1248	CT,NH,NY,ME,NC
Aroclor-1248 [2C]	CT,NH,NY,ME,NC
Aroclor-1254	CT,NH,NY,ME,NC
Aroclor-1254 [2C]	CT,NH,NY,ME,NC
Aroclor-1260	CT,NH,NY,ME,NC
Aroclor-1260 [2C]	CT,NH,NY,ME,NC
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,RI,NC,ME
Aroclor-1016 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1221	CT,NH,NY,RI,NC,ME
Aroclor-1221 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1232	CT,NH,NY,RI,NC,ME
Aroclor-1232 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1242	CT,NH,NY,RI,NC,ME
Aroclor-1242 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1248	CT,NH,NY,RI,NC,ME
Aroclor-1248 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1254	CT,NH,NY,RI,NC,ME
Aroclor-1254 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1260	CT,NH,NY,RI,NC,ME
Aroclor-1260 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1262	NC
Aroclor-1262 [2C]	NC
Aroclor-1268	NC
Aroclor-1268 [2C]	NC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2011
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2011
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2011
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

CHAIN OF CUSTODY RECORD

11F0837

Company Name: WOODARD + CURRAN
Telephone: 1 (978) 557-8150
Address: 35 N.E. Business CTR., Suite 180 ANDOVER, MA
Project # 224189
Client PO#
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER AMHERST, MA
Sampled By: J. REAM

DATA DELIVERY (check all that apply)
○ FAX ✓EMAIL ○WEBSITE
Fax # gfranklin @ woodardcurran.com
Email: jhamel @
Format: ✓PDF ✓EXCEL ○GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes ______ proposal date

# of Containers								1
** Preservation								I
***Container Code								A

ANALYSIS REQUESTED

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCB's (Soxhlet Extraction)
-01	WH-VBC-030	6/23/11	0735		✓	O	L	X
-02	WH-VBC-031	↓	0920		✓	O	L	X
-03	WH-VBC-032	↓	0930		✓	O	L	X
-04	WH-VBC-033	↓	0945		✓	O	L	X
-05	WH-VBC-034	↓	1005		✓	O	L	X
-06	WH-VBC-035	↓	1020		✓	O	L	X
-07	WH-VBC-036	↓	1035		✓	O	L	X
-08	WH-VBC-037	↓	1250		✓	O	L	X
-09	WH-VBC-038	↓	1300		✓	O	L	X
-10	WH-VBC-039	↓	1300		✓	O	L	X
-11	WH-VBC-040	↓	1315		✓	O	L	X

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other______

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other CONCRETE

Comments:
PCB's by 8082 via 3540 C R.L. ≤1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Signature	Date/Time
Relinquished by: (signature) Jesse Abbey R	6/23/11
Received by: (signature) Ed [signature]	6/23/11 1400
Relinquished by: (signature) Ed [signature]	6/23/11 1540
Received by: (signature) [signature] 3.0 °C	6/23/11 1540

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other 5 DAY NO CHARGE
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts: ______
Connecticut: ______
Other: ______

Is your project MCP or RCP ?
○ MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required PWSID # ______

NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard & Curran **RECEIVED BY:** CEC **DATE:** 6/23/11

1) Was the chain(s) of custody relinquished and signed? **Yes** **No** **No CoC Included**

2) Does the chain agree with the samples? **Yes** **No**

If not, explain:

3) Are all the samples in good condition? **Yes** **No**

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? **Yes** **No** **N/A**

Temperature °C by Temp blank _____ Temperature °C by Temp gun 3.0°C

5) Are there Dissolved samples for the lab to filter? **Yes** **No**

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? **Yes** **No**

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber	2	8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)	10	2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

Doc# 277

Rev. 1 May 2011

11F0837-01 WH-VBC-030

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	1.03	0.9748334	5.5
Decachlorobiphenyl	0.930	1.023557	9.58

11F0837-02 WH-VBC-031

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.999	1.03407	3.45
Tetrachloro-m-xylene	1.09	1.045585	4.16

11F0837-03 WH-VBC-032

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.840	0.8726522	3.81
Tetrachloro-m-xylene	0.935	0.8837261	5.64

11F0837-04 WH-VBC-033

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.866	0.8996	3.81
Tetrachloro-m-xylene	0.990	0.932065	6.03

11F0837-05 WH-VBC-034

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	0.943	0.8976191	4.93
Decachlorobiphenyl	0.801	0.8266858	3.16

11F0837-06 WH-VBC-035

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.801	0.8366667	4.36
Tetrachloro-m-xylene	0.893	0.8705048	2.55

11F0837-07 WH-VBC-036

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.907	0.9395136	3.52
Tetrachloro-m-xylene	0.748	0.7043046	6.02

11F0837-08 WH-VBC-037

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	1.03	1.0513	2.05
Tetrachloro-m-xylene	1.10	1.05057	4.6

11F0837-09 WH-VBC-038

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.964	0.9738136	1.01
Tetrachloro-m-xylene	0.999	0.9746773	2.46

11F0837-10 WH-VBCD-039

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.949	0.9998227	5.22
Tetrachloro-m-xylene	1.00	0.9450318	5.65

11F0837-11 WH-VBCQ-040

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	1.82	1.78467	1.96
Decachlorobiphenyl	0.980	1.07599	9.34

B032607-BLK1 Blank

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.952	0.99223	4.14
Tetrachloro-m-xylene	1.04	0.975245	6.43

B032607-BS1 LCS

Analyte	Results		%RPD
Aroclor-1016	0.29	0.25033	14.7
Aroclor-1260	0.25	0.24703	1.2
Surrogates			
Decachlorobiphenyl	0.878	0.90206	2.7
Tetrachloro-m-xylene	1.06	1.015555	4.28

B032607-BSD1 LCS Dup

Analyte	Results		%RPD
Aroclor-1260	0.24	0.25224	4.97
Aroclor-1016	0.27	0.246025	9.29
Surrogates			
Decachlorobiphenyl	0.906	0.917295	1.24
Tetrachloro-m-xylene	1.03	0.972945	5.7

B032669-BLK1 Blank

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	0.441	0.425064	3.68
Decachlorobiphenyl	0.461	0.497682	7.65

B032669-BS1 LCS

Analyte	Results		%RPD
Aroclor-1016	0.48	0.59164	20.8
Aroclor-1260	0.58	0.56124	3.29
Surrogates			
Decachlorobiphenyl	2.34	2.53733	8.09
Tetrachloro-m-xylene	2.51	2.42802	3.32

B032669-BSD1 LCS Dup

Analyte	Results		%RPD
Aroclor-1016	0.51	0.51974	1.89
Aroclor-1260	0.56	0.54469	2.77
Surrogates			
Tetrachloro-m-xylene	2.41	2.31734	3.92
Decachlorobiphenyl	2.32	2.52263	8.37

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11F0837
Project Location: UMASS-Webster, Amherst, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11F0837-01 thru 11F0837-11

Matrices: Product/Solid Water

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes ☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes ☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes ☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes ☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes ☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes ☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☑ Yes ☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: M Erickson Position: Laboratory Director

Printed Name: Michael A. Erickson Date: 06/30/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

July 27, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: Umass-Webster, Amherst, MA
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11G0549

Enclosed are results of analyses for samples received by the laboratory on July 20, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 7/27/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11G0549

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Umass-Webster, Amherst, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VBC-041	11G0549-01	Concrete		SW-846 8082A	
WH-VBC-042	11G0549-02	Concrete		SW-846 8082A	
WH-VBC-043	11G0549-03	Concrete		SW-846 8082A	
WH-VBC-044	11G0549-04	Concrete		SW-846 8082A	
WH-VBC-045	11G0549-05	Concrete		SW-846 8082A	
WH-VBC-046	11G0549-06	Concrete		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8082A

Qualifications:

Elevated reporting limit due to sample matrix interference. Requested detection limit not met.

Analyte & Samples(s) Qualified:

11G0549-01[WH-VBC-041], 11G0549-04[WH-VBC-044]

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

Analyte & Samples(s) Qualified:

Decachlorobiphenyl, Decachlorobiphenyl [2C], Tetrachloro-m-xylene, Tetrachloro-m-xylene [2C]

11G0549-01[WH-VBC-041], 11G0549-04[WH-VBC-044]

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Michael A. Erickson
Laboratory Director

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Umass-Webster, Amherst, MA | Sample Description: | Work Order: 11G0549

Date Received: 7/20/2011

Field Sample #: WH-VBC-041 | Sampled: 7/20/2011 09:20

Sample ID: 11G0549-01

Sample Matrix: Concrete

Sample Flags: RL-04

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	4.8	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:19	PJG
Aroclor-1221 [1]	ND	4.8	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:19	PJG
Aroclor-1232 [1]	ND	4.8	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:19	PJG
Aroclor-1242 [1]	ND	4.8	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:19	PJG
Aroclor-1248 [1]	ND	4.8	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:19	PJG
Aroclor-1254 [1]	ND	4.8	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:19	PJG
Aroclor-1260 [1]	ND	4.8	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:19	PJG
Aroclor-1262 [1]	ND	4.8	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:19	PJG
Aroclor-1268 [1]	ND	4.8	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:19	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	*	30-150	S-01	7/25/11 16:19
Decachlorobiphenyl [2]	*	30-150	S-01	7/25/11 16:19
Tetrachloro-m-xylene [1]	*	30-150	S-01	7/25/11 16:19
Tetrachloro-m-xylene [2]	*	30-150	S-01	7/25/11 16:19

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Umass-Webster, Amherst, MA Sample Description: Work Order: 11G0549

Date Received: 7/20/2011

Field Sample #: WH-VBC-042 Sampled: 7/20/2011 10:20

Sample ID: 11G0549-02

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.87	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:01	PJG
Aroclor-1221 [1]	ND	0.87	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:01	PJG
Aroclor-1232 [1]	ND	0.87	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:01	PJG
Aroclor-1242 [1]	ND	0.87	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:01	PJG
Aroclor-1248 [1]	ND	0.87	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:01	PJG
Aroclor-1254 [1]	1.9	0.87	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:01	PJG
Aroclor-1260 [1]	ND	0.87	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:01	PJG
Aroclor-1262 [1]	ND	0.87	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:01	PJG
Aroclor-1268 [1]	ND	0.87	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:01	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	124	30-150		7/22/11 21:01
Decachlorobiphenyl [2]	95.4	30-150		7/22/11 21:01
Tetrachloro-m-xylene [1]	114	30-150		7/22/11 21:01
Tetrachloro-m-xylene [2]	77.6	30-150		7/22/11 21:01

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Umass-Webster, Amherst, MA | Sample Description: | Work Order: 11G0549

Date Received: 7/20/2011

Field Sample #: WH-VBC-043 | Sampled: 7/20/2011 09:40

Sample ID: 11G0549-03

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.95	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:14	PJG
Aroclor-1221 [1]	ND	0.95	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:14	PJG
Aroclor-1232 [1]	ND	0.95	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:14	PJG
Aroclor-1242 [1]	ND	0.95	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:14	PJG
Aroclor-1248 [1]	ND	0.95	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:14	PJG
Aroclor-1254 [1]	7.2	0.95	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:14	PJG
Aroclor-1260 [1]	ND	0.95	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:14	PJG
Aroclor-1262 [1]	ND	0.95	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:14	PJG
Aroclor-1268 [1]	ND	0.95	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:14	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	140	30-150		7/22/11 21:14
Decachlorobiphenyl [2]	106	30-150		7/22/11 21:14
Tetrachloro-m-xylene [1]	130	30-150		7/22/11 21:14
Tetrachloro-m-xylene [2]	88.9	30-150		7/22/11 21:14

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Umass-Webster, Amherst, MA Sample Description: Work Order: 11G0549

Date Received: 7/20/2011

Field Sample #: WH-VBC-044 Sampled: 7/20/2011 10:25

Sample ID: 11G0549-04

Sample Matrix: Concrete

Sample Flags: RL-04

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	5.0	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:32	PJG
Aroclor-1221 [1]	ND	5.0	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:32	PJG
Aroclor-1232 [1]	ND	5.0	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:32	PJG
Aroclor-1242 [1]	ND	5.0	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:32	PJG
Aroclor-1248 [1]	ND	5.0	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:32	PJG
Aroclor-1254 [1]	ND	5.0	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:32	PJG
Aroclor-1260 [1]	ND	5.0	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:32	PJG
Aroclor-1262 [1]	ND	5.0	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:32	PJG
Aroclor-1268 [1]	ND	5.0	mg/Kg	50		SW-846 8082A	7/20/11	7/25/11 16:32	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	*	30-150	S-01	7/25/11 16:32
Decachlorobiphenyl [2]	*	30-150	S-01	7/25/11 16:32
Tetrachloro-m-xylene [1]	*	30-150	S-01	7/25/11 16:32
Tetrachloro-m-xylene [2]	*	30-150	S-01	7/25/11 16:32

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Umass-Webster, Amherst, MA
Sample Description:
Work Order: 11G0549

Date Received: 7/20/2011

Field Sample #: WH-VBC-045
Sampled: 7/20/2011 09:50

Sample ID: 11G0549-05

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:40	PJG
Aroclor-1221 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:40	PJG
Aroclor-1232 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:40	PJG
Aroclor-1242 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:40	PJG
Aroclor-1248 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:40	PJG
Aroclor-1254 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:40	PJG
Aroclor-1260 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:40	PJG
Aroclor-1262 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:40	PJG
Aroclor-1268 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:40	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	138	30-150		7/22/11 21:40
Decachlorobiphenyl [2]	104	30-150		7/22/11 21:40
Tetrachloro-m-xylene [1]	128	30-150		7/22/11 21:40
Tetrachloro-m-xylene [2]	88.5	30-150		7/22/11 21:40

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Umass-Webster, Amherst, MA | Sample Description: | Work Order: 11G0549

Date Received: 7/20/2011

Field Sample #: WH-VBC-046 | Sampled: 7/20/2011 10:40

Sample ID: 11G0549-06

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:53	PJG
Aroclor-1221 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:53	PJG
Aroclor-1232 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:53	PJG
Aroclor-1242 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:53	PJG
Aroclor-1248 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:53	PJG
Aroclor-1254 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:53	PJG
Aroclor-1260 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:53	PJG
Aroclor-1262 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:53	PJG
Aroclor-1268 [1]	ND	0.91	mg/Kg	10		SW-846 8082A	7/20/11	7/22/11 21:53	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	131	30-150		7/22/11 21:53
Decachlorobiphenyl [2]	97.3	30-150		7/22/11 21:53
Tetrachloro-m-xylene [1]	121	30-150		7/22/11 21:53
Tetrachloro-m-xylene [2]	83.4	30-150		7/22/11 21:53

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
11G0549-01 [WH-VBC-041]	B034021	2.10	10.0	07/20/11
11G0549-02 [WH-VBC-042]	B034021	2.30	10.0	07/20/11
11G0549-03 [WH-VBC-043]	B034021	2.10	10.0	07/20/11
11G0549-04 [WH-VBC-044]	B034021	2.00	10.0	07/20/11
11G0549-05 [WH-VBC-045]	B034021	2.20	10.0	07/20/11
11G0549-06 [WH-VBC-046]	B034021	2.20	10.0	07/20/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B034021 - SW-846 3540C										
Blank (B034021-BLK1)				Prepared: 07/20/11 Analyzed: 07/22/11						
Aroclor-1016	ND	0.10	mg/Kg							
Aroclor-1016 [2C]	ND	0.10	mg/Kg							
Aroclor-1221	ND	0.10	mg/Kg							
Aroclor-1221 [2C]	ND	0.10	mg/Kg							
Aroclor-1232	ND	0.10	mg/Kg							
Aroclor-1232 [2C]	ND	0.10	mg/Kg							
Aroclor-1242	ND	0.10	mg/Kg							
Aroclor-1242 [2C]	ND	0.10	mg/Kg							
Aroclor-1248	ND	0.10	mg/Kg							
Aroclor-1248 [2C]	ND	0.10	mg/Kg							
Aroclor-1254	ND	0.10	mg/Kg							
Aroclor-1254 [2C]	ND	0.10	mg/Kg							
Aroclor-1260	ND	0.10	mg/Kg							
Aroclor-1260 [2C]	ND	0.10	mg/Kg							
Aroclor-1262	ND	0.10	mg/Kg							
Aroclor-1262 [2C]	ND	0.10	mg/Kg							
Aroclor-1268	ND	0.10	mg/Kg							
Aroclor-1268 [2C]	ND	0.10	mg/Kg							
Surrogate: Decachlorobiphenyl	*1.12*		mg/Kg	1.00		112	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.917*		mg/Kg	1.00		91.7	30-150			
Surrogate: Tetrachloro-m-xylene	*1.02*		mg/Kg	1.00		102	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.800*		mg/Kg	1.00		80.0	30-150			
LCS (B034021-BS1)				Prepared: 07/20/11 Analyzed: 07/22/11						
Aroclor-1016	0.30	0.10	mg/Kg	0.250		122	40-140			
Aroclor-1016 [2C]	0.27	0.10	mg/Kg	0.250		106	40-140			
Aroclor-1260	0.30	0.10	mg/Kg	0.250		121	40-140			
Aroclor-1260 [2C]	0.28	0.10	mg/Kg	0.250		111	40-140			
Surrogate: Decachlorobiphenyl	*1.20*		mg/Kg	1.00		120	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.959*		mg/Kg	1.00		95.9	30-150			
Surrogate: Tetrachloro-m-xylene	*1.09*		mg/Kg	1.00		109	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.832*		mg/Kg	1.00		83.2	30-150			
LCS Dup (B034021-BSD1)				Prepared: 07/20/11 Analyzed: 07/22/11						
Aroclor-1016	0.27	0.10	mg/Kg	0.250		110	40-140	10.1	30	
Aroclor-1016 [2C]	0.26	0.10	mg/Kg	0.250		102	40-140	3.56	30	
Aroclor-1260	0.28	0.10	mg/Kg	0.250		113	40-140	6.84	30	
Aroclor-1260 [2C]	0.27	0.10	mg/Kg	0.250		107	40-140	4.01	30	
Surrogate: Decachlorobiphenyl	*1.14*		mg/Kg	1.00		114	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.900*		mg/Kg	1.00		90.0	30-150			
Surrogate: Tetrachloro-m-xylene	*1.06*		mg/Kg	1.00		106	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.782*		mg/Kg	1.00		78.2	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
RL-04	Elevated reporting limit due to sample matrix interference. Requested detection limit not met.
S-01	The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Product/Solid	
Aroclor-1016	CT,NH,NY,ME,NC
Aroclor-1016 [2C]	CT,NH,NY,ME,NC
Aroclor-1221	CT,NH,NY,ME,NC
Aroclor-1221 [2C]	CT,NH,NY,ME,NC
Aroclor-1232	CT,NH,NY,ME,NC
Aroclor-1232 [2C]	CT,NH,NY,ME,NC
Aroclor-1242	CT,NH,NY,ME,NC
Aroclor-1242 [2C]	CT,NH,NY,ME,NC
Aroclor-1248	CT,NH,NY,ME,NC
Aroclor-1248 [2C]	CT,NH,NY,ME,NC
Aroclor-1254	CT,NH,NY,ME,NC
Aroclor-1254 [2C]	CT,NH,NY,ME,NC
Aroclor-1260	CT,NH,NY,ME,NC
Aroclor-1260 [2C]	CT,NH,NY,ME,NC

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028

11G0549

Company Name: WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR, SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS - WEBSTER AMHERST, MA
Sampled By: J. REAM

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Telephone: 1(978)557-8150
Project # 224189
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ☑ EMAIL ○ WEBSITE
Fax # gfranklin@woodardcurran.com
Email: jhamel
Format: ☑ PDF ☑ EXCEL ○ GIS
○ OTHER _____
○ "Enhanced Data Package"

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCB's (Soxhlet)											
-01	WH-VBC-041	7/20/11	0920		✓	O	L	X											
-02	WH-VBC-042	↓	1020		✓	O	L	X											
-03	WH-VBC-043		0940		✓	O	L	X											
-04	WH-VBC-044		1025		✓	O	L	X											
-05	WH-VBC-045		0950		✓	O	L	X											
-06	WH-VBC-046	↓	1040		✓	O	L	X											

# of Containers	1																		
** Preservation	I																		
***Container Code	A																		

ANALYSIS REQUESTED

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V=vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other CONCRETE

Comments: PCB's by USEPA 8080 via 3540c (Soxhlet Extraction)
R.L. ≤ 1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:
Jesse Abbey	7/20/11
Received by: (signature) Ed [illegible]	Date/Time: 7/20/11 1505
Relinquished by: (signature) Ed [illegible]	Date/Time: 7/20/11 1635
Received by: (signature) [illegible] 4.3	Date/Time: 7/20/11 1635

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other 5 DAY NO CHARGE

RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required PWSID # _____

nelac ACCREDITED LABORATORY AIHA
NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard + Curran **RECEIVED BY:** SD **DATE:** 7/20/11

1) Was the chain(s) of custody relinquished and signed? Yes No No CoC Included

2) Does the chain agree with the samples? Yes No

If not, explain:

3) Are all the samples in good condition? Yes No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 4.3

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 18

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)	6	2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic	-	Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

Doc# 277

Rev. 1 May 2011

11G0549-02 WH-VBC-042

Analyte	Results		%RPD
Aroclor-1254	1.9	1.731348	9.29
Surrogates			
Decachlorobiphenyl	1.08	0.8291304	26.3
Tetrachloro-m-xylene	0.994	0.675087	38.2

11G0549-03 WH-VBC-043

Analyte	Results		%RPD
Aroclor-1254	7.2	6.801	5.7
Surrogates			
Decachlorobiphenyl	1.34	1.012571	27.8
Tetrachloro-m-xylene	1.23	0.8465239	36.9

11G0549-05 WH-VBC-045

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	1.26	0.944	28.7
Tetrachloro-m-xylene	1.16	0.8045	36.2

11G0549-06 WH-VBC-046

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	1.10	0.7579545	36.8
Decachlorobiphenyl	1.19	0.8844091	29.5

B034021-BLK1 Blank

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	1.02	0.799745	24.2
Decachlorobiphenyl	1.12	0.916715	20

B034021-BS1 LCS

Analyte	Results		%RPD
Aroclor-1016	0.30	0.26522	12.3
Aroclor-1260	0.30	0.278205	7.54
Surrogates			
Decachlorobiphenyl	1.20	0.958805	22.3
Tetrachloro-m-xylene	1.09	0.832195	26.8

B034021-BSD1 LCS Dup

Analyte	Results		%RPD
Aroclor-1016	0.27	0.25594	5.35
Aroclor-1260	0.28	0.267265	4.65
Surrogates			
Tetrachloro-m-xylene	1.06	0.78161	30.2
Decachlorobiphenyl	1.14	0.89975	23.6

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11G0549
Project Location: Umass-Webster, Amherst, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11G0549-01 thru 11G0549-06

Matrices: Product/Solid

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes	☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes	☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes	☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes	☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes	☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☐ Yes	☑ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☐ Yes	☑ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: M Erickson Position: Laboratory Director

Printed Name: Michael A. Erickson Date: 07/27/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

July 28, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: UMASS - Webster Amherst, MA
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11G0635

Enclosed are results of analyses for samples received by the laboratory on July 22, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 7/28/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11G0635

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: UMASS - Webster Amherst, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VBS-047	11G0635-01	Concrete		SW-846 8082A	
WH-VBS-048	11G0635-02	Concrete		SW-846 8082A	
WH-VBS-049	11G0635-03	Concrete		SW-846 8082A	
WH-VBS-050	11G0635-04	Concrete		SW-846 8082A	
WH-VBC-051	11G0635-05	Concrete		SW-846 8082A	
WH-VBC-052	11G0635-06	Concrete		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Michael A. Erickson
Laboratory Director

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11G0635

Date Received: 7/22/2011

Field Sample #: WH-VBS-047 Sampled: 7/22/2011 07:30

Sample ID: 11G0635-01

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 14:54	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 14:54	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 14:54	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 14:54	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 14:54	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 14:54	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 14:54	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 14:54	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 14:54	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	83.5	30-150		7/25/11 14:54
Decachlorobiphenyl [2]	97.5	30-150		7/25/11 14:54
Tetrachloro-m-xylene [1]	92.7	30-150		7/25/11 14:54
Tetrachloro-m-xylene [2]	93.9	30-150		7/25/11 14:54

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11G0635

Date Received: 7/22/2011

Field Sample #: WH-VBS-048 Sampled: 7/22/2011 07:40

Sample ID: 11G0635-02

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:08	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:08	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:08	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:08	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:08	PJG
Aroclor-1254 [1]	0.51	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:08	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:08	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:08	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:08	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	89.8	30-150		7/25/11 15:08
Decachlorobiphenyl [2]	104	30-150		7/25/11 15:08
Tetrachloro-m-xylene [1]	92.4	30-150		7/25/11 15:08
Tetrachloro-m-xylene [2]	92.7	30-150		7/25/11 15:08

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11G0635

Date Received: 7/22/2011

Field Sample #: WH-VBS-049 Sampled: 7/22/2011 10:20

Sample ID: 11G0635-03

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:22	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:22	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:22	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:22	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:22	PJG
Aroclor-1254 [2]	0.16	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:22	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:22	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:22	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:22	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	86.6	30-150		7/25/11 15:22
Decachlorobiphenyl [2]	99.9	30-150		7/25/11 15:22
Tetrachloro-m-xylene [1]	88.9	30-150		7/25/11 15:22
Tetrachloro-m-xylene [2]	90.5	30-150		7/25/11 15:22

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11G0635

Date Received: 7/22/2011

Field Sample #: WH-VBS-050 Sampled: 7/22/2011 10:40

Sample ID: 11G0635-04

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:36	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:36	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:36	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:36	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:36	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:36	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:36	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:36	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:36	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	92.4	30-150		7/25/11 15:36
Decachlorobiphenyl [2]	108	30-150		7/25/11 15:36
Tetrachloro-m-xylene [1]	91.3	30-150		7/25/11 15:36
Tetrachloro-m-xylene [2]	89.6	30-150		7/25/11 15:36

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11G0635

Date Received: 7/22/2011

Field Sample #: WH-VBC-051 Sampled: 7/22/2011 10:50

Sample ID: 11G0635-05

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:50	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:50	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:50	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:50	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:50	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:50	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:50	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:50	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 15:50	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	84.0	30-150		7/25/11 15:50
Decachlorobiphenyl [2]	97.2	30-150		7/25/11 15:50
Tetrachloro-m-xylene [1]	83.8	30-150		7/25/11 15:50
Tetrachloro-m-xylene [2]	84.9	30-150		7/25/11 15:50

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11G0635

Date Received: 7/22/2011

Field Sample #: WH-VBC-052 Sampled: 7/22/2011 11:00

Sample ID: 11G0635-06

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 16:04	PJG
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 16:04	PJG
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 16:04	PJG
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 16:04	PJG
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 16:04	PJG
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 16:04	PJG
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 16:04	PJG
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 16:04	PJG
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/22/11	7/25/11 16:04	PJG

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	91.5	30-150		7/25/11 16:04
Decachlorobiphenyl [2]	106	30-150		7/25/11 16:04
Tetrachloro-m-xylene [1]	91.0	30-150		7/25/11 16:04
Tetrachloro-m-xylene [2]	89.4	30-150		7/25/11 16:04

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
11G0635-01 [WH-VBS-047]	B034142	2.00	10.0	07/22/11
11G0635-02 [WH-VBS-048]	B034142	2.00	10.0	07/22/11
11G0635-03 [WH-VBS-049]	B034142	2.00	10.0	07/22/11
11G0635-04 [WH-VBS-050]	B034142	2.00	10.0	07/22/11
11G0635-05 [WH-VBC-051]	B034142	2.00	10.0	07/22/11
11G0635-06 [WH-VBC-052]	B034142	2.00	10.0	07/22/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B034142 - SW-846 3540C										
Blank (B034142-BLK1)				Prepared: 07/22/11 Analyzed: 07/25/11						
Aroclor-1016	ND	0.10	mg/Kg							
Aroclor-1016 [2C]	ND	0.10	mg/Kg							
Aroclor-1221	ND	0.10	mg/Kg							
Aroclor-1221 [2C]	ND	0.10	mg/Kg							
Aroclor-1232	ND	0.10	mg/Kg							
Aroclor-1232 [2C]	ND	0.10	mg/Kg							
Aroclor-1242	ND	0.10	mg/Kg							
Aroclor-1242 [2C]	ND	0.10	mg/Kg							
Aroclor-1248	ND	0.10	mg/Kg							
Aroclor-1248 [2C]	ND	0.10	mg/Kg							
Aroclor-1254	ND	0.10	mg/Kg							
Aroclor-1254 [2C]	ND	0.10	mg/Kg							
Aroclor-1260	ND	0.10	mg/Kg							
Aroclor-1260 [2C]	ND	0.10	mg/Kg							
Aroclor-1262	ND	0.10	mg/Kg							
Aroclor-1262 [2C]	ND	0.10	mg/Kg							
Aroclor-1268	ND	0.10	mg/Kg							
Aroclor-1268 [2C]	ND	0.10	mg/Kg							
Surrogate: Decachlorobiphenyl	*0.814*		mg/Kg	1.00		81.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.887*		mg/Kg	1.00		88.7	30-150			
Surrogate: Tetrachloro-m-xylene	*0.865*		mg/Kg	1.00		86.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.871*		mg/Kg	1.00		87.1	30-150			
LCS (B034142-BS1)				Prepared: 07/22/11 Analyzed: 07/25/11						
Aroclor-1016	0.25	0.10	mg/Kg	0.250		99.6	40-140			
Aroclor-1016 [2C]	0.26	0.10	mg/Kg	0.250		103	40-140			
Aroclor-1260	0.21	0.10	mg/Kg	0.250		85.4	40-140			
Aroclor-1260 [2C]	0.23	0.10	mg/Kg	0.250		93.1	40-140			
Surrogate: Decachlorobiphenyl	*0.797*		mg/Kg	1.00		79.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.864*		mg/Kg	1.00		86.4	30-150			
Surrogate: Tetrachloro-m-xylene	*0.820*		mg/Kg	1.00		82.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.840*		mg/Kg	1.00		84.0	30-150			
LCS Dup (B034142-BSD1)				Prepared: 07/22/11 Analyzed: 07/25/11						
Aroclor-1016	0.26	0.10	mg/Kg	0.250		103	40-140	3.12	30	
Aroclor-1016 [2C]	0.27	0.10	mg/Kg	0.250		109	40-140	5.67	30	
Aroclor-1260	0.23	0.10	mg/Kg	0.250		93.1	40-140	8.63	30	
Aroclor-1260 [2C]	0.26	0.10	mg/Kg	0.250		103	40-140	9.79	30	
Surrogate: Decachlorobiphenyl	*0.877*		mg/Kg	1.00		87.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.967*		mg/Kg	1.00		96.7	30-150			
Surrogate: Tetrachloro-m-xylene	*0.893*		mg/Kg	1.00		89.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.912*		mg/Kg	1.00		91.2	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Product/Solid	
Aroclor-1016	CT,NH,NY,ME,NC
Aroclor-1016 [2C]	CT,NH,NY,ME,NC
Aroclor-1221	CT,NH,NY,ME,NC
Aroclor-1221 [2C]	CT,NH,NY,ME,NC
Aroclor-1232	CT,NH,NY,ME,NC
Aroclor-1232 [2C]	CT,NH,NY,ME,NC
Aroclor-1242	CT,NH,NY,ME,NC
Aroclor-1242 [2C]	CT,NH,NY,ME,NC
Aroclor-1248	CT,NH,NY,ME,NC
Aroclor-1248 [2C]	CT,NH,NY,ME,NC
Aroclor-1254	CT,NH,NY,ME,NC
Aroclor-1254 [2C]	CT,NH,NY,ME,NC
Aroclor-1260	CT,NH,NY,ME,NC
Aroclor-1260 [2C]	CT,NH,NY,ME,NC

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

CHAIN OF CUSTODY RECORD

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

11G0635

Company Name: WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR, SUITE
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER ~~AMHERST~~, MA
Sampled By: J. REAM

Telephone: 1(978)557-8150
Project #: 224189
Client PO#:

DATA DELIVERY (check all that apply)
O FAX ⊙ EMAIL O WEBSITE
Fax # gfrankl@woodardcurran.com
Email: jhamel
Format: ~~O PDF~~ ~~O EXCEL~~ O GIS
O OTHER
O "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
O yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCB's (Soxhlet Extraction)										# of Containers	** Preservation	***Container Code
																		I	I	A
-1	WH-VBS-047	7/22/11	0730		✓	O	L	X												
-2	WH-VBS-048	↓	0740		✓	O	L	X												
-3	WH-VBS-049		1020		✓	O	L	X												
-4	WH-VBS-050		1040		✓	O	L	X												
-5	WH-VBC-051		1050		✓	O	L	X												
-6	WH-VBC-052	↓	1100		✓	O	L	X												

ANALYSIS REQUESTED

Dissolved Metals
O Field Filtered
O Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Comments: PCB's by USEPA 8082 via 3540C (Soxhlet Extraction)
R.L. ≤1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:
[signature]	7/22/11 15:06
Received by: (signature)	Date/Time:
[signature] 2.5°C	7/22/11 15:06
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other 5 DAY (NO CHARGE)
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
O MCP Analytical Certification Form Required
O RCP Analysis Certification Form Required
O MA State DW Form Required PWSID # _____

nelac ACCREDITED LABORATORY AIHA

NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard & Curran **RECEIVED BY:** CB **DATE:** 7/22/11

1) Was the chain(s) of custody relinquished and signed? Yes No **No CoC Included**

2) Does the chain agree with the samples? Yes No

If not, explain:

3) Are all the samples in good condition? Yes No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 2.5°c

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)	6	2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

Doc# 277

Rev. 1 May

11G0630-14 URS-784/L4B/072111

Analyte		Results	%RPD
Aroclor-1248	0.30	0.297635	0.791
Surrogates			
Decachlorobiphenyl	0.888	0.82006	7.96
Tetrachloro-m-xylene	0.900	0.938565	4.2

11G0635-01 WH-VBS-047

Analyte		Results	%RPD
Surrogates			
Decachlorobiphenyl	0.835	0.97549	15.5
Tetrachloro-m-xylene	0.927	0.93901	1.29

11G0635-02 WH-VBS-048

Analyte		Results	%RPD
Aroclor-1254	0.51	0.499915	2
Surrogates			
Tetrachloro-m-xylene	0.924	0.92652	0.272
Decachlorobiphenyl	0.898	1.04197	14.8

11G0635-03 WH-VBS-049

Analyte		Results	%RPD
Aroclor-1254 [2C]	0.16	0.143275	11
Surrogates			
Tetrachloro-m-xylene	0.889	0.90537	1.82
Decachlorobiphenyl	0.866	0.9994	14.3

11G0635-04 WH-VBS-050

Analyte		Results	%RPD
Surrogates			
Decachlorobiphenyl	0.924	1.07691	15.3
Tetrachloro-m-xylene	0.913	0.89636	1.84

11G0635-05 WH-VBC-051

Analyte		Results	%RPD
Surrogates			
Decachlorobiphenyl	0.840	0.971805	14.5
Tetrachloro-m-xylene	0.838	0.84923	1.33

11G0635-06 WH-VBC-052

Analyte		Results	%RPD
Surrogates			
Tetrachloro-m-xylene	0.910	0.8937	1.81
Decachlorobiphenyl	0.915	1.063175	15

B034142-BLK1 Blank

Analyte		Results	%RPD
Surrogates			
Decachlorobiphenyl	0.814	0.88697	8.58
Tetrachloro-m-xylene	0.865	0.870675	0.654

B034142-BS1 LCS

Analyte		Results	%RPD
Aroclor-1016	0.25	0.256485	2.56
Aroclor-1260	0.21	0.23286	10.3
Surrogates			
Decachlorobiphenyl	0.797	0.864395	8.11
Tetrachloro-m-xylene	0.820	0.840265	2.44

B034142-BSD1 LCS Dup

Analyte		Results	%RPD
Aroclor-1260	0.23	0.25682	11

Aroclor-1016	0.26	0.27146	4.31
Surrogates			
Decachlorobiphenyl	0.877	0.96666	9.73
Tetrachloro-m-xylene	0.893	0.912045	2.11

B034142-MS1 Matrix Spike

Analyte	Results		%RPD
Aroclor-1260	0.24	0.270425	11.9
Aroclor-1016	0.31	0.5335	53
Surrogates			
Decachlorobiphenyl	0.880	0.83099	5.73
Tetrachloro-m-xylene	0.910	0.876765	3.72

B034142-MSD1 Matrix Spike Dup

Analyte	Results		%RPD
Aroclor-1016	0.37	0.525505	34.7
Aroclor-1260	0.25	0.280995	11.7
Surrogates			
Tetrachloro-m-xylene	0.961	0.928155	3.48
Decachlorobiphenyl	0.921	0.87458	5.17

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11G0635
Project Location: UMASS - Webster Amherst, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11G0635-01 thru 11G0635-06

Matrices: Product/Solid

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes	☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes	☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes	☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes	☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes	☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☑ Yes	☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: M Erickson Position: Laboratory Director

Printed Name: Michael A. Erickson Date: 07/28/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

July 28, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: UMass Webster
Client Job Number:
Project Number: 224166
Laboratory Work Order Number: 11G0682

Enclosed are results of analyses for samples received by the laboratory on July 25, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 7/28/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224166

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11G0682

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: UMass Webster

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VBS-053	11G0682-01	Concrete		SW-846 8082A	
WH-VBS-054	11G0682-02	Concrete		SW-846 8082A	
WH-VBS-055	11G0682-03	Concrete		SW-846 8082A	
WH-VWS-056	11G0682-04	Wipe		SW-846 8082A	
WH-VWS-057	11G0682-05	Wipe		SW-846 8082A	
WH-VWS-058	11G0682-06	Wipe		SW-846 8082A	
WH-VWSD-059	11G0682-07	Wipe		SW-846 8082A	
WH-VWSQ-060	11G0682-08	Water		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8082A

Qualifications:

Matrix spike and/or spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.

Analyte & Samples(s) Qualified:

Aroclor-1016, Aroclor-1016 [2C], Aroclor-1260, Aroclor-1260 [2C]

B034231-MS1, B034231-MSD1

One of the two surrogates was outside of control criteria, sample media does not allow for re-extraction.

Analyte & Samples(s) Qualified:

Tetrachloro-m-xylene, Tetrachloro-m-xylene [2C]

11G0682-07[WH-VWSD-059]

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Meghan E. Kelley
Project Chemist

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster | Sample Description: | Work Order: 11G0682

Date Received: 7/25/2011

Field Sample #: WH-VBS-053 | Sampled: 7/25/2011 09:30

Sample ID: 11G0682-01

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 15:55	JMB
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 15:55	JMB
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 15:55	JMB
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 15:55	JMB
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 15:55	JMB
Aroclor-1254 [1]	0.90	0.091	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 15:55	JMB
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 15:55	JMB
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 15:55	JMB
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 15:55	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	87.3	30-150		7/26/11 15:55
Decachlorobiphenyl [2]	83.5	30-150		7/26/11 15:55
Tetrachloro-m-xylene [1]	82.9	30-150		7/26/11 15:55
Tetrachloro-m-xylene [2]	80.5	30-150		7/26/11 15:55

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster
Sample Description:
Work Order: 11G0682

Date Received: 7/25/2011

Field Sample #: WH-VBS-054
Sampled: 7/25/2011 09:45

Sample ID: 11G0682-02

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:08	JMB
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:08	JMB
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:08	JMB
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:08	JMB
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:08	JMB
Aroclor-1254 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:08	JMB
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:08	JMB
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:08	JMB
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:08	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	93.0	30-150		7/26/11 16:08
Decachlorobiphenyl [2]	89.0	30-150		7/26/11 16:08
Tetrachloro-m-xylene [1]	93.3	30-150		7/26/11 16:08
Tetrachloro-m-xylene [2]	90.9	30-150		7/26/11 16:08

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster
Sample Description:
Work Order: 11G0682

Date Received: 7/25/2011

Field Sample #: WH-VBS-055
Sampled: 7/25/2011 10:00

Sample ID: 11G0682-03

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:20	JMB
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:20	JMB
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:20	JMB
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:20	JMB
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:20	JMB
Aroclor-1254 [1]	0.099	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:20	JMB
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:20	JMB
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:20	JMB
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/25/11	7/26/11 16:20	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	92.2	30-150		7/26/11 16:20
Decachlorobiphenyl [2]	88.3	30-150		7/26/11 16:20
Tetrachloro-m-xylene [1]	94.2	30-150		7/26/11 16:20
Tetrachloro-m-xylene [2]	91.3	30-150		7/26/11 16:20

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster
Sample Description:
Work Order: 11G0682

Date Received: 7/25/2011

Field Sample #: WH-VWS-056
Sampled: 7/25/2011 11:05

Sample ID: 11G0682-04

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:09	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:09	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:09	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:09	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:09	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:09	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:09	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:09	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:09	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	101	30-150		7/26/11 18:09
Decachlorobiphenyl [2]	118	30-150		7/26/11 18:09
Tetrachloro-m-xylene [1]	103	30-150		7/26/11 18:09
Tetrachloro-m-xylene [2]	98.3	30-150		7/26/11 18:09

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster
Sample Description:
Work Order: 11G0682

Date Received: 7/25/2011

Field Sample #: WH-VWS-057
Sampled: 7/25/2011 11:10

Sample ID: 11G0682-05

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:23	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:23	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:23	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:23	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:23	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:23	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:23	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:23	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:23	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	97.4	30-150		7/26/11 18:23
Decachlorobiphenyl [2]	110	30-150		7/26/11 18:23
Tetrachloro-m-xylene [1]	107	30-150		7/26/11 18:23
Tetrachloro-m-xylene [2]	102	30-150		7/26/11 18:23

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster
Sample Description:
Work Order: 11G0682

Date Received: 7/25/2011

Field Sample #: WH-VWS-058
Sampled: 7/25/2011 11:15

Sample ID: 11G0682-06

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:37	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:37	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:37	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:37	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:37	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:37	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:37	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:37	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:37	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	99.0	30-150		7/26/11 18:37
Decachlorobiphenyl [2]	113	30-150		7/26/11 18:37
Tetrachloro-m-xylene [1]	102	30-150		7/26/11 18:37
Tetrachloro-m-xylene [2]	101	30-150		7/26/11 18:37

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster | Sample Description: | Work Order: 11G0682

Date Received: 7/25/2011

Field Sample #: WH-VWSD-059 | Sampled: 7/25/2011 11:15

Sample ID: 11G0682-07

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:51	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:51	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:51	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:51	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:51	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:51	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:51	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:51	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/25/11	7/26/11 18:51	JMB

Surrogates	% Recovery		Recovery Limits	Flag	
Decachlorobiphenyl [1]	50.3		30-150		7/26/11 18:51
Decachlorobiphenyl [2]	58.1		30-150		7/26/11 18:51
Tetrachloro-m-xylene [1]	**3.36**	*	30-150	Z-01	7/26/11 18:51
Tetrachloro-m-xylene [2]	**3.11**	*	30-150	Z-01	7/26/11 18:51

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster | Sample Description: | Work Order: 11G0682

Date Received: 7/25/2011

Field Sample #: WH-VWSQ-060 | Sampled: 7/25/2011 11:30

Sample ID: 11G0682-08

Sample Matrix: Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/26/11	7/26/11 20:43	JMB
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/26/11	7/26/11 20:43	JMB
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/26/11	7/26/11 20:43	JMB
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/26/11	7/26/11 20:43	JMB
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/26/11	7/26/11 20:43	JMB
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/26/11	7/26/11 20:43	JMB
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/26/11	7/26/11 20:43	JMB
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/26/11	7/26/11 20:43	JMB
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/26/11	7/26/11 20:43	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	51.1	30-150		7/26/11 20:43
Decachlorobiphenyl [2]	58.2	30-150		7/26/11 20:43
Tetrachloro-m-xylene [1]	77.7	30-150		7/26/11 20:43
Tetrachloro-m-xylene [2]	77.0	30-150		7/26/11 20:43

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
11G0682-01 [WH-VBS-053]	B034231	2.20	10.0	07/25/11
11G0682-02 [WH-VBS-054]	B034231	2.10	10.0	07/25/11
11G0682-03 [WH-VBS-055]	B034231	2.10	10.0	07/25/11

Prep Method: SW-846 3510C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
11G0682-08 [WH-VWSQ-060]	B034238	1000	10.0	07/26/11

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [Wipe]	Final [mL]	Date
11G0682-04 [WH-VWS-056]	B034234	1.00	10.0	07/25/11
11G0682-05 [WH-VWS-057]	B034234	1.00	10.0	07/25/11
11G0682-06 [WH-VWS-058]	B034234	1.00	10.0	07/25/11
11G0682-07 [WH-VWSD-059]	B034234	1.00	10.0	07/25/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B034231 - SW-846 3540C										
Blank (B034231-BLK1)				Prepared: 07/25/11 Analyzed: 07/26/11						
Aroclor-1016	ND	0.10	mg/Kg							
Aroclor-1016 [2C]	ND	0.10	mg/Kg							
Aroclor-1221	ND	0.10	mg/Kg							
Aroclor-1221 [2C]	ND	0.10	mg/Kg							
Aroclor-1232	ND	0.10	mg/Kg							
Aroclor-1232 [2C]	ND	0.10	mg/Kg							
Aroclor-1242	ND	0.10	mg/Kg							
Aroclor-1242 [2C]	ND	0.10	mg/Kg							
Aroclor-1248	ND	0.10	mg/Kg							
Aroclor-1248 [2C]	ND	0.10	mg/Kg							
Aroclor-1254	ND	0.10	mg/Kg							
Aroclor-1254 [2C]	ND	0.10	mg/Kg							
Aroclor-1260	ND	0.10	mg/Kg							
Aroclor-1260 [2C]	ND	0.10	mg/Kg							
Aroclor-1262	ND	0.10	mg/Kg							
Aroclor-1262 [2C]	ND	0.10	mg/Kg							
Aroclor-1268	ND	0.10	mg/Kg							
Aroclor-1268 [2C]	ND	0.10	mg/Kg							
Surrogate: Decachlorobiphenyl	*0.974*		mg/Kg	1.00		97.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.927*		mg/Kg	1.00		92.7	30-150			
Surrogate: Tetrachloro-m-xylene	*1.01*		mg/Kg	1.00		101	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.979*		mg/Kg	1.00		97.9	30-150			
LCS (B034231-BS1)				Prepared: 07/25/11 Analyzed: 07/26/11						
Aroclor-1016	0.25	0.10	mg/Kg	0.250		98.4	40-140			
Aroclor-1016 [2C]	0.28	0.10	mg/Kg	0.250		112	40-140			
Aroclor-1260	0.26	0.10	mg/Kg	0.250		103	40-140			
Aroclor-1260 [2C]	0.28	0.10	mg/Kg	0.250		112	40-140			
Surrogate: Decachlorobiphenyl	*0.990*		mg/Kg	1.00		99.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.946*		mg/Kg	1.00		94.6	30-150			
Surrogate: Tetrachloro-m-xylene	*1.05*		mg/Kg	1.00		105	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.02*		mg/Kg	1.00		102	30-150			
LCS Dup (B034231-BSD1)				Prepared: 07/25/11 Analyzed: 07/26/11						
Aroclor-1016	0.24	0.10	mg/Kg	0.250		96.7	40-140	1.76	30	
Aroclor-1016 [2C]	0.26	0.10	mg/Kg	0.250		104	40-140	7.44	30	
Aroclor-1260	0.24	0.10	mg/Kg	0.250		97.3	40-140	5.94	30	
Aroclor-1260 [2C]	0.29	0.10	mg/Kg	0.250		118	40-140	5.18	30	
Surrogate: Decachlorobiphenyl	*0.926*		mg/Kg	1.00		92.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.879*		mg/Kg	1.00		87.9	30-150			
Surrogate: Tetrachloro-m-xylene	*0.943*		mg/Kg	1.00		94.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.914*		mg/Kg	1.00		91.4	30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B034231 - SW-846 3540C											
Matrix Spike (B034231-MS1)		**Source: 11G0682-01**		Prepared: 07/25/11 Analyzed: 07/26/11							
Aroclor-1016	0.37	0.091	mg/Kg	0.227	0.0	**161**	*	40-140			MS-21
Aroclor-1016 [2C]	1.4	0.091	mg/Kg	0.227	0.0	**614**	*	40-140			MS-21
Aroclor-1260	1.1	0.091	mg/Kg	0.227	0.0	**479**	*	40-140			MS-21
Aroclor-1260 [2C]	0.83	0.091	mg/Kg	0.227	0.0	**363**	*	40-140			MS-21
Surrogate: Decachlorobiphenyl	*0.790*		mg/Kg	0.909		86.9		30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.757*		mg/Kg	0.909		83.3		30-150			
Surrogate: Tetrachloro-m-xylene	*0.803*		mg/Kg	0.909		88.4		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.785*		mg/Kg	0.909		86.3		30-150			
Matrix Spike Dup (B034231-MSD1)		**Source: 11G0682-01**		Prepared: 07/25/11 Analyzed: 07/26/11							
Aroclor-1016	0.39	0.091	mg/Kg	0.227	0.0	**172**	*	40-140	6.61	50	MS-21
Aroclor-1016 [2C]	0.93	0.091	mg/Kg	0.227	0.0	**409**	*	40-140	40.0	50	MS-21
Aroclor-1260	0.84	0.091	mg/Kg	0.227	0.0	**369**	*	40-140	25.8	50	MS-21
Aroclor-1260 [2C]	0.63	0.091	mg/Kg	0.227	0.0	**279**	*	40-140	26.2	50	MS-21
Surrogate: Decachlorobiphenyl	*0.854*		mg/Kg	0.909		93.9		30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.818*		mg/Kg	0.909		90.0		30-150			
Surrogate: Tetrachloro-m-xylene	*0.868*		mg/Kg	0.909		95.5		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.842*		mg/Kg	0.909		92.6		30-150			
Batch B034234 - SW-846 3540C											
Blank (B034234-BLK1)				Prepared: 07/25/11 Analyzed: 07/26/11							
Aroclor-1016	ND	0.20	µg/Wipe								
Aroclor-1016 [2C]	ND	0.20	µg/Wipe								
Aroclor-1221	ND	0.20	µg/Wipe								
Aroclor-1221 [2C]	ND	0.20	µg/Wipe								
Aroclor-1232	ND	0.20	µg/Wipe								
Aroclor-1232 [2C]	ND	0.20	µg/Wipe								
Aroclor-1242	ND	0.20	µg/Wipe								
Aroclor-1242 [2C]	ND	0.20	µg/Wipe								
Aroclor-1248	ND	0.20	µg/Wipe								
Aroclor-1248 [2C]	ND	0.20	µg/Wipe								
Aroclor-1254	ND	0.20	µg/Wipe								
Aroclor-1254 [2C]	ND	0.20	µg/Wipe								
Aroclor-1260	ND	0.20	µg/Wipe								
Aroclor-1260 [2C]	ND	0.20	µg/Wipe								
Aroclor-1262	ND	0.20	µg/Wipe								
Aroclor-1262 [2C]	ND	0.20	µg/Wipe								
Aroclor-1268	ND	0.20	µg/Wipe								
Aroclor-1268 [2C]	ND	0.20	µg/Wipe								
Surrogate: Decachlorobiphenyl	*2.14*		µg/Wipe	2.00		107		30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.46*		µg/Wipe	2.00		123		30-150			
Surrogate: Tetrachloro-m-xylene	*2.07*		µg/Wipe	2.00		104		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.92*		µg/Wipe	2.00		95.9		30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B034234 - SW-846 3540C										
LCS (B034234-BS1)				Prepared: 07/25/11 Analyzed: 07/26/11						
Aroclor-1016	0.45	0.20	µg/Wipe	0.500		90.6	40-140			
Aroclor-1016 [2C]	0.48	0.20	µg/Wipe	0.500		96.7	40-140			
Aroclor-1260	0.50	0.20	µg/Wipe	0.500		99.4	40-140			
Aroclor-1260 [2C]	0.51	0.20	µg/Wipe	0.500		101	40-140			
Surrogate: Decachlorobiphenyl	*2.07*		µg/Wipe	2.00		103	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.39*		µg/Wipe	2.00		119	30-150			
Surrogate: Tetrachloro-m-xylene	*2.02*		µg/Wipe	2.00		101	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.92*		µg/Wipe	2.00		96.0	30-150			
LCS Dup (B034234-BSD1)				Prepared: 07/25/11 Analyzed: 07/26/11						
Aroclor-1016	0.50	0.20	µg/Wipe	0.500		99.3	40-140	9.19	30	
Aroclor-1016 [2C]	0.47	0.20	µg/Wipe	0.500		93.4	40-140	3.52	30	
Aroclor-1260	0.50	0.20	µg/Wipe	0.500		100	40-140	0.761	30	
Aroclor-1260 [2C]	0.49	0.20	µg/Wipe	0.500		97.4	40-140	3.84	30	
Surrogate: Decachlorobiphenyl	*2.03*		µg/Wipe	2.00		101	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.33*		µg/Wipe	2.00		117	30-150			
Surrogate: Tetrachloro-m-xylene	*2.15*		µg/Wipe	2.00		108	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*2.10*		µg/Wipe	2.00		105	30-150			
Batch B034238 - SW-846 3510C										
Blank (B034238-BLK1)				Prepared & Analyzed: 07/26/11						
Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	*1.67*		µg/L	2.00		83.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.92*		µg/L	2.00		95.8	30-150			
Surrogate: Tetrachloro-m-xylene	*1.87*		µg/L	2.00		93.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.85*		µg/L	2.00		92.7	30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B034238 - SW-846 3510C										
LCS (B034238-BS1)				Prepared & Analyzed: 07/26/11						
Aroclor-1016	0.45	0.20	µg/L	0.500		90.7	40-140			
Aroclor-1016 [2C]	0.46	0.20	µg/L	0.500		91.9	40-140			
Aroclor-1260	0.38	0.20	µg/L	0.500		75.8	40-140			
Aroclor-1260 [2C]	0.40	0.20	µg/L	0.500		80.8	40-140			
Surrogate: Decachlorobiphenyl	*0.854*		µg/L	2.00		42.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.971*		µg/L	2.00		48.5	30-150			
Surrogate: Tetrachloro-m-xylene	*1.42*		µg/L	2.00		70.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.40*		µg/L	2.00		70.1	30-150			
LCS Dup (B034238-BSD1)				Prepared & Analyzed: 07/26/11						
Aroclor-1016	0.41	0.20	µg/L	0.500		82.1	40-140	9.98	20	
Aroclor-1016 [2C]	0.41	0.20	µg/L	0.500		82.8	40-140	10.4	20	
Aroclor-1260	0.37	0.20	µg/L	0.500		74.3	40-140	2.10	20	
Aroclor-1260 [2C]	0.39	0.20	µg/L	0.500		78.9	40-140	2.39	20	
Surrogate: Decachlorobiphenyl	*0.970*		µg/L	2.00		48.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.10*		µg/L	2.00		55.2	30-150			
Surrogate: Tetrachloro-m-xylene	*1.08*		µg/L	2.00		53.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.07*		µg/L	2.00		53.5	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
MS-21	Matrix spike and/or spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.
Z-01	One of the two surrogates was outside of control criteria, sample media does not allow for re-extraction.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Product/Solid	
Aroclor-1016	CT,NH,NY,ME,NC
Aroclor-1016 [2C]	CT,NH,NY,ME,NC
Aroclor-1221	CT,NH,NY,ME,NC
Aroclor-1221 [2C]	CT,NH,NY,ME,NC
Aroclor-1232	CT,NH,NY,ME,NC
Aroclor-1232 [2C]	CT,NH,NY,ME,NC
Aroclor-1242	CT,NH,NY,ME,NC
Aroclor-1242 [2C]	CT,NH,NY,ME,NC
Aroclor-1248	CT,NH,NY,ME,NC
Aroclor-1248 [2C]	CT,NH,NY,ME,NC
Aroclor-1254	CT,NH,NY,ME,NC
Aroclor-1254 [2C]	CT,NH,NY,ME,NC
Aroclor-1260	CT,NH,NY,ME,NC
Aroclor-1260 [2C]	CT,NH,NY,ME,NC
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,RI,NC,ME
Aroclor-1016 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1221	CT,NH,NY,RI,NC,ME
Aroclor-1221 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1232	CT,NH,NY,RI,NC,ME
Aroclor-1232 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1242	CT,NH,NY,RI,NC,ME
Aroclor-1242 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1248	CT,NH,NY,RI,NC,ME
Aroclor-1248 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1254	CT,NH,NY,RI,NC,ME
Aroclor-1254 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1260	CT,NH,NY,RI,NC,ME
Aroclor-1260 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1262	NC
Aroclor-1262 [2C]	NC
Aroclor-1268	NC
Aroclor-1268 [2C]	NC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

1160682

39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

Company Name: WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR., SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER AMHERST, MA
Sampled By: J. REAM

Telephone: 1(978) 557-8150
Project # 224189
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ● EMAIL ○ WEBSITE
Fax # gfranklin@woodardcurran.com
Email: jhamel
Format: ● PDF ● EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCBs (Soxhlet Extraction)	# of Containers	** Preservation	***Container Code
01	WH-VBS-053	7/25/11	0930		✓	O	L	X	I	I	A
02	WH-VBS-054		0945		✓	O	L	X			
03	WH-VBS-055		1000		✓	O	L	X			
04	WH-VWS-056		1105		✓	O	L	X			
05	WH-VWS-057		1110		✓	O	L	X			
06	WH-VWS-058		1115		✓	O	L	X			
07	WH-VWSD-059		1115		✓	O	L	X			
08	WH-VWSQ-060		1130		✓	O	L	X			

ANALYSIS REQUESTED

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Comments: PCB's by USEPA 8082 via Method 3540c (Soxhlet Extraction)
R.L. ≤ 1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 7/25/11	1410
Received by: (signature)	Date/Time: 7/25	1410
Relinquished by: (signature)	Date/Time: 7/25	1505
Received by: (signature) 3-500	Date/Time: 7/25/11	1505

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other 5 DAY NO CHARGE
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required PWSID # _____

nelac ACCREDITED LABORATORY AIHA
NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard + Curran **RECEIVED BY:** GB **DATE:** 7/25/11

1) Was the chain(s) of custody relinquished and signed? Yes No No CoC Included

2) Does the chain agree with the samples? Yes No

If not, explain:

3) Are all the samples in good condition? Yes No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank 3.5°c Temperature °C by Temp gun _____

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: (8

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber	2	8 oz amber/clear jar	4
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)	3	2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

Doc# 277

Rev. 1 May 2011

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11G0682
Project Location: UMass Webster	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11G0682-01 thru 11G0682-08

Matrices: Product/Solid Water Wipe

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes ☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes ☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes ☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes ☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes ☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes ☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☐ Yes ☑ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Meghan E. Kelley Position: Project Chemist

Printed Name: Meghan E. Kelley Date: 07/28/11

11G0682-01 WH-VBS-053

Analyte	Results		%RPD
Aroclor-1254	0.90	0.8759727	2.71
Surrogates			
Decachlorobiphenyl	0.794	0.7593636	4.46
Tetrachloro-m-xylene	0.754	0.7322046	2.93

11G0682-02 WH-VBS-054

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.885	0.8471905	4.37
Tetrachloro-m-xylene	0.888	0.8657095	2.54

11G0682-03 WH-VBS-055

Analyte	Results		%RPD
Aroclor-1254	0.099	9.107619E-02	8.34
Surrogates			
Decachlorobiphenyl	0.878	0.8406667	4.34
Tetrachloro-m-xylene	0.897	0.87	3.06

11G0682-04 WH-VWS-056

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	2.03	2.35006	14.6
Tetrachloro-m-xylene	2.07	1.96545	5.18

11G0682-05 WH-VWS-057

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	1.95	2.19284	11.7
Tetrachloro-m-xylene	2.14	2.03374	5.09

11G0682-06 WH-VWS-058

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	2.04	2.02577	0.7
Decachlorobiphenyl	1.98	2.25991	13.2

11G0682-07 WH-VWSD-059

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	1.01	1.16213	14
Tetrachloro-m-xylene	0.0672	0.06213	7.84

11G0682-08 WH-VWSQ-060

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	1.02	1.16409	13.2
Tetrachloro-m-xylene	1.55	1.54018	0.636

B034231-BLK1 Blank

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.974	0.926955	4.95
Tetrachloro-m-xylene	1.01	0.979185	3.1

B034231-BS1 LCS

Analyte	Results		%RPD
Aroclor-1016	0.25	0.280615	11.5
Aroclor-1260	0.26	0.279605	7.27
Surrogates			
Decachlorobiphenyl	0.990	0.946235	4.52

Tetrachloro-m-xylene	1.05	1.018335	3.06

B034231-BSD1 LCS Dup

Analyte		Results	%RPD
Aroclor-1016	0.24	0.260495	8.19
Aroclor-1260	0.24	0.294465	20.4
Surrogates			
Decachlorobiphenyl	0.926	0.87878	5.23
Tetrachloro-m-xylene	0.943	0.913515	3.18

B034231-MS1 Matrix Spike

Analyte		Results	%RPD
Aroclor-1260	1.1	0.8259818	28.5
Aroclor-1016	0.37	1.395914	116
Surrogates			
Decachlorobiphenyl	0.790	0.7571272	4.25
Tetrachloro-m-xylene	0.803	0.7846954	2.31

B034231-MSD1 Matrix Spike Dup

Analyte		Results	%RPD
Aroclor-1016	0.39	0.9306409	81.9
Aroclor-1260	0.84	0.6348909	27.8
Surrogates			
Tetrachloro-m-xylene	0.868	0.8422409	3.01
Decachlorobiphenyl	0.854	0.8183045	4.27

B034234-BLK1 Blank

Analyte		Results	%RPD
Surrogates			
Decachlorobiphenyl	2.14	2.456	13.8
Tetrachloro-m-xylene	2.07	1.91722	7.66

B034234-BS1 LCS

Analyte		Results	%RPD
Aroclor-1016	0.45	0.48354	7.19
Aroclor-1260	0.50	0.50584	1.16
Surrogates			
Tetrachloro-m-xylene	2.02	1.91921	5.12
Decachlorobiphenyl	2.07	2.38805	14.3

B034234-BSD1 LCS Dup

Analyte		Results	%RPD
Aroclor-1016	0.50	0.4668	6.87
Aroclor-1260	0.50	0.48677	2.68
Surrogates			
Tetrachloro-m-xylene	2.15	2.09577	2.55
Decachlorobiphenyl	2.03	2.33231	13.9

B034238-BLK1 Blank

Analyte		Results	%RPD
Surrogates			
Decachlorobiphenyl	1.67	1.91565	13.7
Tetrachloro-m-xylene	1.87	1.85444	0.836

B034238-BS1 LCS

Analyte		Results	%RPD
Aroclor-1016	0.45	0.45957	2.1
Aroclor-1260	0.38	0.40404	6.13
Surrogates			
Decachlorobiphenyl	0.854	0.97097	12.8
Tetrachloro-m-xylene	1.42	1.40191	1.28

B034238-BSD1 LCS Dup

Analyte		Results	%RPD

Aroclor-1016	0.41	0.41393	0.954
Aroclor-1260	0.37	0.39448	6.4
Surrogates			
Tetrachloro-m-xylene	1.08	1.06986	0.943
Decachlorobiphenyl	0.970	1.10452	13

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

August 2, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: UMASS-Amherst, MA
Client Job Number:
Project Number: 224166
Laboratory Work Order Number: 11G0735

Enclosed are results of analyses for samples received by the laboratory on July 26, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 8/2/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224166

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11G0735

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: UMASS-Amherst, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VBC-061	11G0735-01	Product/Solid		SW-846 8082A	
WH-VBC-062	11G0735-02	Product/Solid		SW-846 8082A	
WH-VBC-063	11G0735-03	Product/Solid		SW-846 8082A	
WH-VBC-064	11G0735-04	Product/Solid		SW-846 8082A	
WH-VBC-065	11G0735-05	Product/Solid		SW-846 8082A	
WH-VBC-066	11G0735-06	Product/Solid		SW-846 8082A	
WH-VBC-067	11G0735-07	Product/Solid		SW-846 8082A	
WH-VBC-068	11G0735-08	Product/Solid		SW-846 8082A	
WH-VBS-069	11G0735-09	Product/Solid		SW-846 8082A	
WH-VBS-070	11G0735-10	Product/Solid		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8082A

Qualifications:

Matrix spike and/or spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.

Analyte & Samples(s) Qualified:

Aroclor-1016, Aroclor-1016 [2C], Aroclor-1260, Aroclor-1260 [2C]

B034368-MS1, B034368-MSD1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Daren J. Damboragian
Laboratory Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Amherst, MA | Sample Description: | Work Order: 11G0735

Date Received: 7/26/2011

Field Sample #: WH-VBC-061 | Sampled: 7/26/2011 11:28

Sample ID: 11G0735-01

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.43	mg/Kg	5		SW-846 8082A	7/27/11	7/30/11 10:14	JMB
Aroclor-1221 [1]	ND	0.43	mg/Kg	5		SW-846 8082A	7/27/11	7/30/11 10:14	JMB
Aroclor-1232 [1]	ND	0.43	mg/Kg	5		SW-846 8082A	7/27/11	7/30/11 10:14	JMB
Aroclor-1242 [1]	ND	0.43	mg/Kg	5		SW-846 8082A	7/27/11	7/30/11 10:14	JMB
Aroclor-1248 [1]	ND	0.43	mg/Kg	5		SW-846 8082A	7/27/11	7/30/11 10:14	JMB
Aroclor-1254 [2]	4.3	0.43	mg/Kg	5		SW-846 8082A	7/27/11	7/30/11 10:14	JMB
Aroclor-1260 [1]	ND	0.43	mg/Kg	5		SW-846 8082A	7/27/11	7/30/11 10:14	JMB
Aroclor-1262 [1]	ND	0.43	mg/Kg	5		SW-846 8082A	7/27/11	7/30/11 10:14	JMB
Aroclor-1268 [1]	ND	0.43	mg/Kg	5		SW-846 8082A	7/27/11	7/30/11 10:14	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	119	30-150		7/30/11 10:14
Decachlorobiphenyl [2]	138	30-150		7/30/11 10:14
Tetrachloro-m-xylene [1]	112	30-150		7/30/11 10:14
Tetrachloro-m-xylene [2]	96.1	30-150		7/30/11 10:14

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Amherst, MA | Sample Description: | Work Order: 11G0735

Date Received: 7/26/2011

Field Sample #: WH-VBC-062 | Sampled: 7/26/2011 11:36

Sample ID: 11G0735-02

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:07	JMB
Aroclor-1221 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:07	JMB
Aroclor-1232 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:07	JMB
Aroclor-1242 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:07	JMB
Aroclor-1248 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:07	JMB
Aroclor-1254 [2]	0.95	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:07	JMB
Aroclor-1260 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:07	JMB
Aroclor-1262 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:07	JMB
Aroclor-1268 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:07	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	90.8	30-150		7/29/11 15:07
Decachlorobiphenyl [2]	99.4	30-150		7/29/11 15:07
Tetrachloro-m-xylene [1]	92.1	30-150		7/29/11 15:07
Tetrachloro-m-xylene [2]	81.1	30-150		7/29/11 15:07

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Amherst, MA | Sample Description: | Work Order: 11G0735

Date Received: 7/26/2011

Field Sample #: WH-VBC-063 | Sampled: 7/26/2011 11:41

Sample ID: 11G0735-03

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:21	JMB
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:21	JMB
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:21	JMB
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:21	JMB
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:21	JMB
Aroclor-1254 [2]	0.12	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:21	JMB
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:21	JMB
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:21	JMB
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:21	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	107	30-150		7/29/11 15:21
Decachlorobiphenyl [2]	118	30-150		7/29/11 15:21
Tetrachloro-m-xylene [1]	112	30-150		7/29/11 15:21
Tetrachloro-m-xylene [2]	94.7	30-150		7/29/11 15:21

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Amherst, MA
Sample Description:
Work Order: 11G0735

Date Received: 7/26/2011

Field Sample #: WH-VBC-064
Sampled: 7/26/2011 11:59

Sample ID: 11G0735-04

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:35	JMB
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:35	JMB
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:35	JMB
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:35	JMB
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:35	JMB
Aroclor-1254 [2]	0.12	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:35	JMB
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:35	JMB
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:35	JMB
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:35	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	96.6	30-150		7/29/11 15:35
Decachlorobiphenyl [2]	108	30-150		7/29/11 15:35
Tetrachloro-m-xylene [1]	105	30-150		7/29/11 15:35
Tetrachloro-m-xylene [2]	95.9	30-150		7/29/11 15:35

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Amherst, MA | Sample Description: | Work Order: 11G0735

Date Received: 7/26/2011

Field Sample #: WH-VBC-065 | Sampled: 7/26/2011 12:26

Sample ID: 11G0735-05

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:49	JMB
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:49	JMB
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:49	JMB
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:49	JMB
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:49	JMB
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:49	JMB
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:49	JMB
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:49	JMB
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 15:49	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	99.2	30-150		7/29/11 15:49
Decachlorobiphenyl [2]	112	30-150		7/29/11 15:49
Tetrachloro-m-xylene [1]	97.9	30-150		7/29/11 15:49
Tetrachloro-m-xylene [2]	87.7	30-150		7/29/11 15:49

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Amherst, MA | Sample Description: | Work Order: 11G0735

Date Received: 7/26/2011

Field Sample #: WH-VBC-066 | Sampled: 7/26/2011 12:46

Sample ID: 11G0735-06

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/30/11 10:42	JMB
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/30/11 10:42	JMB
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/30/11 10:42	JMB
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/30/11 10:42	JMB
Aroclor-1248 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/30/11 10:42	JMB
Aroclor-1254 [2]	0.16	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/30/11 10:42	JMB
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/30/11 10:42	JMB
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/30/11 10:42	JMB
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/27/11	7/30/11 10:42	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	107	30-150		7/30/11 10:42
Decachlorobiphenyl [2]	125	30-150		7/30/11 10:42
Tetrachloro-m-xylene [1]	99.0	30-150		7/30/11 10:42
Tetrachloro-m-xylene [2]	87.8	30-150		7/30/11 10:42

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Amherst, MA
Sample Description:
Work Order: 11G0735

Date Received: 7/26/2011

Field Sample #: WH-VBC-067
Sampled: 7/26/2011 13:06

Sample ID: 11G0735-07

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:17	JMB
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:17	JMB
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:17	JMB
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:17	JMB
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:17	JMB
Aroclor-1254 [2]	0.19	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:17	JMB
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:17	JMB
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:17	JMB
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:17	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	108	30-150		7/29/11 16:17
Decachlorobiphenyl [2]	128	30-150		7/29/11 16:17
Tetrachloro-m-xylene [1]	108	30-150		7/29/11 16:17
Tetrachloro-m-xylene [2]	98.7	30-150		7/29/11 16:17

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Amherst, MA
Sample Description:
Work Order: 11G0735

Date Received: 7/26/2011

Field Sample #: WH-VBC-068
Sampled: 7/26/2011 13:16

Sample ID: 11G0735-08

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:31	JMB
Aroclor-1221 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:31	JMB
Aroclor-1232 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:31	JMB
Aroclor-1242 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:31	JMB
Aroclor-1248 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:31	JMB
Aroclor-1254 [1]	0.36	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:31	JMB
Aroclor-1260 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:31	JMB
Aroclor-1262 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:31	JMB
Aroclor-1268 [1]	ND	0.087	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:31	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	108	30-150		7/29/11 16:31
Decachlorobiphenyl [2]	129	30-150		7/29/11 16:31
Tetrachloro-m-xylene [1]	110	30-150		7/29/11 16:31
Tetrachloro-m-xylene [2]	102	30-150		7/29/11 16:31

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Amherst, MA
Sample Description:
Work Order: 11G0735

Date Received: 7/26/2011

Field Sample #: WH-VBS-069
Sampled: 7/26/2011 12:08

Sample ID: 11G0735-09

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:45	JMB
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:45	JMB
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:45	JMB
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:45	JMB
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:45	JMB
Aroclor-1254 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:45	JMB
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:45	JMB
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:45	JMB
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:45	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	111	30-150		7/29/11 16:45
Decachlorobiphenyl [2]	132	30-150		7/29/11 16:45
Tetrachloro-m-xylene [1]	109	30-150		7/29/11 16:45
Tetrachloro-m-xylene [2]	101	30-150		7/29/11 16:45

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Amherst, MA
Sample Description:
Work Order: 11G0735

Date Received: 7/26/2011

Field Sample #: WH-VBS-070
Sampled: 7/26/2011 12:50

Sample ID: 11G0735-10

Sample Matrix: Product/Solid

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:59	JMB
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:59	JMB
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:59	JMB
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:59	JMB
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:59	JMB
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:59	JMB
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:59	JMB
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:59	JMB
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/27/11	7/29/11 16:59	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	115	30-150		7/29/11 16:59
Decachlorobiphenyl [2]	138	30-150		7/29/11 16:59
Tetrachloro-m-xylene [1]	109	30-150		7/29/11 16:59
Tetrachloro-m-xylene [2]	100	30-150		7/29/11 16:59

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
11G0735-01 [WH-VBC-061]	B034368	2.30	10.0	07/27/11
11G0735-02 [WH-VBC-062]	B034368	2.30	10.0	07/27/11
11G0735-03 [WH-VBC-063]	B034368	2.20	10.0	07/27/11
11G0735-04 [WH-VBC-064]	B034368	2.10	10.0	07/27/11
11G0735-05 [WH-VBC-065]	B034368	2.00	10.0	07/27/11
11G0735-06 [WH-VBC-066]	B034368	2.20	10.0	07/27/11
11G0735-07 [WH-VBC-067]	B034368	2.00	10.0	07/27/11
11G0735-08 [WH-VBC-068]	B034368	2.30	10.0	07/27/11
11G0735-09 [WH-VBS-069]	B034368	2.10	10.0	07/27/11
11G0735-10 [WH-VBS-070]	B034368	2.00	10.0	07/27/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B034368 - SW-846 3540C										
Blank (B034368-BLK1)				Prepared: 07/27/11 Analyzed: 07/29/11						
Aroclor-1016	ND	0.10	mg/Kg							
Aroclor-1016 [2C]	ND	0.10	mg/Kg							
Aroclor-1221	ND	0.10	mg/Kg							
Aroclor-1221 [2C]	ND	0.10	mg/Kg							
Aroclor-1232	ND	0.10	mg/Kg							
Aroclor-1232 [2C]	ND	0.10	mg/Kg							
Aroclor-1242	ND	0.10	mg/Kg							
Aroclor-1242 [2C]	ND	0.10	mg/Kg							
Aroclor-1248	ND	0.10	mg/Kg							
Aroclor-1248 [2C]	ND	0.10	mg/Kg							
Aroclor-1254	ND	0.10	mg/Kg							
Aroclor-1254 [2C]	ND	0.10	mg/Kg							
Aroclor-1260	ND	0.10	mg/Kg							
Aroclor-1260 [2C]	ND	0.10	mg/Kg							
Aroclor-1262	ND	0.10	mg/Kg							
Aroclor-1262 [2C]	ND	0.10	mg/Kg							
Aroclor-1268	ND	0.10	mg/Kg							
Aroclor-1268 [2C]	ND	0.10	mg/Kg							
Surrogate: Decachlorobiphenyl	*1.06*		mg/Kg	1.00		106	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.13*		mg/Kg	1.00		113	30-150			
Surrogate: Tetrachloro-m-xylene	*0.982*		mg/Kg	1.00		98.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.934*		mg/Kg	1.00		93.4	30-150			
LCS (B034368-BS1)				Prepared: 07/27/11 Analyzed: 07/29/11						
Aroclor-1016	0.25	0.10	mg/Kg	0.250		102	40-140			
Aroclor-1016 [2C]	0.26	0.10	mg/Kg	0.250		103	40-140			
Aroclor-1260	0.24	0.10	mg/Kg	0.250		96.6	40-140			
Aroclor-1260 [2C]	0.26	0.10	mg/Kg	0.250		102	40-140			
Surrogate: Decachlorobiphenyl	*1.10*		mg/Kg	1.00		110	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.18*		mg/Kg	1.00		118	30-150			
Surrogate: Tetrachloro-m-xylene	*1.02*		mg/Kg	1.00		102	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.987*		mg/Kg	1.00		98.7	30-150			
LCS Dup (B034368-BSD1)				Prepared: 07/27/11 Analyzed: 07/29/11						
Aroclor-1016	0.25	0.10	mg/Kg	0.250		98.2	40-140	3.39	30	
Aroclor-1016 [2C]	0.25	0.10	mg/Kg	0.250		101	40-140	1.63	30	
Aroclor-1260	0.24	0.10	mg/Kg	0.250		97.2	40-140	0.663	30	
Aroclor-1260 [2C]	0.26	0.10	mg/Kg	0.250		105	40-140	2.97	30	
Surrogate: Decachlorobiphenyl	*1.07*		mg/Kg	1.00		107	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.16*		mg/Kg	1.00		116	30-150			
Surrogate: Tetrachloro-m-xylene	*1.01*		mg/Kg	1.00		101	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.970*		mg/Kg	1.00		97.0	30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B034368 - SW-846 3540C											
Matrix Spike (B034368-MS1)		**Source: 11G0735-01**		Prepared: 07/27/11 Analyzed: 07/29/11							
Aroclor-1016	0.59	0.091	mg/Kg	0.227	0.0	**259**	*	40-140			MS-21
Aroclor-1016 [2C]	0.50	0.091	mg/Kg	0.227	0.0	**220**	*	40-140			MS-21
Aroclor-1260	0.85	0.091	mg/Kg	0.227	0.0	**373**	*	40-140			MS-21
Aroclor-1260 [2C]	0.98	0.091	mg/Kg	0.227	0.0	**432**	*	40-140			MS-21
Surrogate: Decachlorobiphenyl	*1.07*		mg/Kg	0.909		117		30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.27*		mg/Kg	0.909		140		30-150			
Surrogate: Tetrachloro-m-xylene	*0.989*		mg/Kg	0.909		109		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.896*		mg/Kg	0.909		98.5		30-150			
Matrix Spike Dup (B034368-MSD1)		**Source: 11G0735-01**		Prepared: 07/27/11 Analyzed: 07/29/11							
Aroclor-1016	0.58	0.095	mg/Kg	0.238	0.0	**245**	*	40-140	1.15	50	MS-21
Aroclor-1016 [2C]	0.45	0.095	mg/Kg	0.238	0.0	**190**	*	40-140	10.1	50	MS-21
Aroclor-1260	1.1	0.095	mg/Kg	0.238	0.0	**449**	*	40-140	23.0	50	MS-21
Aroclor-1260 [2C]	1.2	0.095	mg/Kg	0.238	0.0	**492**	*	40-140	17.6	50	MS-21
Surrogate: Decachlorobiphenyl	*1.14*		mg/Kg	0.952		119		30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.34*		mg/Kg	0.952		141		30-150			
Surrogate: Tetrachloro-m-xylene	*1.07*		mg/Kg	0.952		113		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.914*		mg/Kg	0.952		95.9		30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
MS-21	Matrix spike and/or spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Product/Solid	
Aroclor-1016	CT,NH,NY,ME,NC
Aroclor-1016 [2C]	CT,NH,NY,ME,NC
Aroclor-1221	CT,NH,NY,ME,NC
Aroclor-1221 [2C]	CT,NH,NY,ME,NC
Aroclor-1232	CT,NH,NY,ME,NC
Aroclor-1232 [2C]	CT,NH,NY,ME,NC
Aroclor-1242	CT,NH,NY,ME,NC
Aroclor-1242 [2C]	CT,NH,NY,ME,NC
Aroclor-1248	CT,NH,NY,ME,NC
Aroclor-1248 [2C]	CT,NH,NY,ME,NC
Aroclor-1254	CT,NH,NY,ME,NC
Aroclor-1254 [2C]	CT,NH,NY,ME,NC
Aroclor-1260	CT,NH,NY,ME,NC
Aroclor-1260 [2C]	CT,NH,NY,ME,NC

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

CHAIN OF CUSTODY RECORD

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

11G0735

Company Name: WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR, SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS – AMHERST, MA
Sampled By: J. Ram, R. FORRESTER

Telephone: 1(978)557-8150
Project #: 224189
Client PO#:

DATA DELIVERY (check all that apply)
O FAX ✓ EMAIL O WEBSITE
Fax #: gfranklin@woodardcurran.com
Email: jhamel@
Format: ✓ PDF ✓ EXCEL O GIS
O OTHER
O "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
O yes _____ proposal date

ANALYSIS REQUESTED

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCB's (Soxhlet)	# of Containers	** Preservation	***Container Code
-01	WH-VBC-061	7/26/11	1128		✓	O	L	X			
-02	WH-VBC-062		1136		✓	O	L	X			
-03	WH-VBC-063		1141		✓	O	L	X			
-04	WH-VBC-064		1159		✓	O	L	X			
-05	WH-VBC-065		1226		✓	O	L	X			
-06	WH-VBC-066		1246		✓	O	L	X			
-07	WH-VBC-067		1306		✓	O	L	X			
-08	WH-VBC-068		1316		✓	O	L	X			
-09	WH-VBS-069		1208		✓	O	L	X			
-10	WH-VBS-070		1250		✓	O	L	X			

Comments: PCB's by USEPA 8082 via 3540c (Soxhlet)
R.L. ≤ 1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals
O Field Filtered
O Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Relinquished by: (signature)	Date/Time:
[signature]	7/26/11 1652
Received by: (signature) 38°C	Date/Time: 7/26/11 1652
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other 5 DAY NO CHARGE
RUSH †
☐ †24-Hr ☐ 48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
O MCP Analytical Certification Form Required
O RCP Analysis Certification Form Required
O MA State DW Form Required PWSID # _____

nelac AIHA
NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard & Curran **RECEIVED BY:** CEC **DATE:** 7/26/11

1) Was the chain(s) of custody relinquished and signed? Yes No No CoC Included

2) Does the chain agree with the samples? Yes No

If not, explain:

3) Are all the samples in good condition? Yes No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 3.8°C

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 14

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)	10	2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____
Bisulfate _____ # DI Water _____
Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

Doc# 277

Rev. 1 May 2011

11G0735-01 WH-VBC-061

Analyte	Results		%RPD
Aroclor-1254 [2C]	4.3	3.835739	11.4
Surrogates			
Decachlorobiphenyl	1.04	1.202783	14.5
Tetrachloro-m-xylene	0.977	0.836	15.6

11G0735-02 WH-VBC-062

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.95	0.9053174	4.82
Surrogates			
Decachlorobiphenyl	0.790	0.8643565	8.99
Tetrachloro-m-xylene	0.801	0.7055174	12.7

11G0735-03 WH-VBC-063

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.12	0.1111682	7.64
Surrogates			
Decachlorobiphenyl	0.973	1.068532	9.36
Tetrachloro-m-xylene	1.01	0.8609727	15.9

11G0735-04 WH-VBC-064

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.12	0.1014381	16.8
Surrogates			
Decachlorobiphenyl	0.920	1.025843	10.9
Tetrachloro-m-xylene	0.998	0.9136857	8.82

11G0735-05 WH-VBC-065

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	0.979	0.87652	11
Decachlorobiphenyl	0.992	1.118785	12

11G0735-06 WH-VBC-066

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.16	0.1404909	13
Surrogates			
Decachlorobiphenyl	0.973	1.136073	15.5
Tetrachloro-m-xylene	0.900	0.7984136	12

11G0735-07 WH-VBC-067

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.19	0.183975	3.22
Surrogates			
Decachlorobiphenyl	1.08	1.279935	16.9
Tetrachloro-m-xylene	1.08	0.98711	8.99

11G0735-08 WH-VBC-068

Analyte	Results		%RPD
Aroclor-1254	0.36	0.3500478	2.8
Surrogates			
Tetrachloro-m-xylene	0.959	0.8834	8.21
Decachlorobiphenyl	0.942	1.120904	17.3

11G0735-09 WH-VBS-069

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	1.04	0.9618667	7.81
Decachlorobiphenyl	1.05	1.258029	18

11G0735-10 WH-VBS-070

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	1.15	1.376125	17.9
Tetrachloro-m-xylene	1.09	1.001315	8.48

B034368-BLK1 Blank

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	1.06	1.128125	6.23
Tetrachloro-m-xylene	0.982	0.934375	4.97

B034368-BS1 LCS

Analyte	Results		%RPD
Aroclor-1016	0.25	0.256805	2.69
Aroclor-1260	0.24	0.25576	6.36
Surrogates			
Tetrachloro-m-xylene	1.02	0.98651	3.34
Decachlorobiphenyl	1.10	1.18078	7.08

B034368-BSD1 LCS Dup

Analyte	Results		%RPD
Aroclor-1016	0.25	0.252645	1.05
Aroclor-1260	0.24	0.26347	9.32
Surrogates			
Tetrachloro-m-xylene	1.01	0.969665	4.07
Decachlorobiphenyl	1.07	1.16379	8.4

B034368-MS1 Matrix Spike

Analyte	Results		%RPD
Aroclor-1016	0.59	0.5001909	16.5
Aroclor-1260	0.85	0.9825909	14.5
Surrogates			
Decachlorobiphenyl	1.07	1.269723	17.1
Tetrachloro-m-xylene	0.989	0.8955182	9.92

B034368-MSD1 Matrix Spike Dup

Analyte	Results		%RPD
Aroclor-1016	0.58	0.4518953	24.8
Aroclor-1260	1.1	1.172462	6.38
Surrogates			
Tetrachloro-m-xylene	1.07	0.9135096	15.8
Decachlorobiphenyl	1.14	1.341295	16.2

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11G0735
Project Location: UMASS-Amherst, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11G0735-01 thru 11G0735-10

Matrices: Product/Solid

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes ☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes ☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes ☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes ☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes ☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes ☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☐ Yes ☑ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ Position: Laboratory Manager

Printed Name: Daren J. Damboragian Date: 08/02/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

July 29, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: UMASS - Webster Amherst, MA
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11G0782

Enclosed are results of analyses for samples received by the laboratory on July 27, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 7/29/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11G0782

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: UMASS - Webster Amherst, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VWS-071	11G0782-01	Wipe		SW-846 8082A	
WH-VWS-072	11G0782-02	Wipe		SW-846 8082A	
WH-VWS-073	11G0782-03	Wipe		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Daren J. Damboragian
Laboratory Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11G0782

Date Received: 7/27/2011

Field Sample #: WH-VWS-071 Sampled: 7/27/2011 10:40

Sample ID: 11G0782-01

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:19	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:19	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:19	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:19	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:19	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:19	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:19	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:19	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:19	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	103	30-150		7/28/11 15:19
Decachlorobiphenyl [2]	116	30-150		7/28/11 15:19
Tetrachloro-m-xylene [1]	98.4	30-150		7/28/11 15:19
Tetrachloro-m-xylene [2]	95.6	30-150		7/28/11 15:19

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11G0782

Date Received: 7/27/2011

Field Sample #: WH-VWS-072 Sampled: 7/27/2011 10:45

Sample ID: 11G0782-02

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:33	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:33	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:33	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:33	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:33	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:33	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:33	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:33	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:33	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	100	30-150		7/28/11 15:33
Decachlorobiphenyl [2]	112	30-150		7/28/11 15:33
Tetrachloro-m-xylene [1]	95.9	30-150		7/28/11 15:33
Tetrachloro-m-xylene [2]	92.2	30-150		7/28/11 15:33

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11G0782

Date Received: 7/27/2011

Field Sample #: WH-VWS-073 Sampled: 7/27/2011 10:50

Sample ID: 11G0782-03

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:47	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:47	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:47	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:47	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:47	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:47	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:47	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:47	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/27/11	7/28/11 15:47	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	99.9	30-150		7/28/11 15:47
Decachlorobiphenyl [2]	114	30-150		7/28/11 15:47
Tetrachloro-m-xylene [1]	95.2	30-150		7/28/11 15:47
Tetrachloro-m-xylene [2]	91.9	30-150		7/28/11 15:47

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [Wipe]	Final [mL]	Date
11G0782-01 [WH-VWS-071]	B034386	1.00	10.0	07/27/11
11G0782-02 [WH-VWS-072]	B034386	1.00	10.0	07/27/11
11G0782-03 [WH-VWS-073]	B034386	1.00	10.0	07/27/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B034386 - SW-846 3540C										
Blank (B034386-BLK1)				Prepared: 07/27/11 Analyzed: 07/28/11						
Aroclor-1016	ND	0.20	µg/Wipe							
Aroclor-1016 [2C]	ND	0.20	µg/Wipe							
Aroclor-1221	ND	0.20	µg/Wipe							
Aroclor-1221 [2C]	ND	0.20	µg/Wipe							
Aroclor-1232	ND	0.20	µg/Wipe							
Aroclor-1232 [2C]	ND	0.20	µg/Wipe							
Aroclor-1242	ND	0.20	µg/Wipe							
Aroclor-1242 [2C]	ND	0.20	µg/Wipe							
Aroclor-1248	ND	0.20	µg/Wipe							
Aroclor-1248 [2C]	ND	0.20	µg/Wipe							
Aroclor-1254	ND	0.20	µg/Wipe							
Aroclor-1254 [2C]	ND	0.20	µg/Wipe							
Aroclor-1260	ND	0.20	µg/Wipe							
Aroclor-1260 [2C]	ND	0.20	µg/Wipe							
Aroclor-1262	ND	0.20	µg/Wipe							
Aroclor-1262 [2C]	ND	0.20	µg/Wipe							
Aroclor-1268	ND	0.20	µg/Wipe							
Aroclor-1268 [2C]	ND	0.20	µg/Wipe							
Surrogate: Decachlorobiphenyl	*2.02*		µg/Wipe	2.00		101	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.29*		µg/Wipe	2.00		115	30-150			
Surrogate: Tetrachloro-m-xylene	*1.95*		µg/Wipe	2.00		97.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.93*		µg/Wipe	2.00		96.4	30-150			
LCS (B034386-BS1)				Prepared: 07/27/11 Analyzed: 07/28/11						
Aroclor-1016	0.49	0.20	µg/Wipe	0.500		98.2	40-140			
Aroclor-1016 [2C]	0.55	0.20	µg/Wipe	0.500		110	40-140			
Aroclor-1260	0.47	0.20	µg/Wipe	0.500		94.3	40-140			
Aroclor-1260 [2C]	0.53	0.20	µg/Wipe	0.500		106	40-140			
Surrogate: Decachlorobiphenyl	*2.03*		µg/Wipe	2.00		101	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.29*		µg/Wipe	2.00		115	30-150			
Surrogate: Tetrachloro-m-xylene	*1.97*		µg/Wipe	2.00		98.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.89*		µg/Wipe	2.00		94.5	30-150			
LCS Dup (B034386-BSD1)				Prepared: 07/27/11 Analyzed: 07/28/11						
Aroclor-1016	0.48	0.20	µg/Wipe	0.500		96.8	40-140	1.47	30	
Aroclor-1016 [2C]	0.56	0.20	µg/Wipe	0.500		111	40-140	1.27	30	
Aroclor-1260	0.45	0.20	µg/Wipe	0.500		89.2	40-140	5.57	30	
Aroclor-1260 [2C]	0.50	0.20	µg/Wipe	0.500		99.5	40-140	6.24	30	
Surrogate: Decachlorobiphenyl	*1.89*		µg/Wipe	2.00		94.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.13*		µg/Wipe	2.00		107	30-150			
Surrogate: Tetrachloro-m-xylene	*1.89*		µg/Wipe	2.00		94.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.83*		µg/Wipe	2.00		91.4	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications

No certified Analyses included in this Report

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

11G0782

39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

Company Name: WOODARD + CURRAN
Address: 35 NE. BUSINESS CTR, SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER AMHERST, MA
Sampled By: J. REAM

Telephone: 1(978)557-8150
Project # 224189
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ☑ EMAIL ○ WEBSITE
Fax # gfranklin@woodardcurran.com
Email: jhamel
Format: ☑ PDF ☑ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

ANALYSIS REQUESTED

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCB's (Soxhlet)										
								I										
								I										
								A										
-01	WH-VWS-071	7/27/11	1040		✓	O	L	X										
-02	WH-VWS-072	↓	1045		✓	O	L	X										
-03	WH-VWS-073	↓	1050		✓	O	L	X										

# of Containers
** Preservation
***Container Code

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Comments: PCB's by USEPA 8082 via 3540c (Soxhlet Extraction)
R.L. ≤ 1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:
[signature]	7/27/11 14:55
Received by: (signature) Victor Fenentino	Date/Time: 7/27/11 14:55
Relinquished by: (signature) Victor Fenentino	Date/Time: 7/27/11 16:20
Received by: (signature) [signature] 2.9°C	Date/Time: 7/27/11 16:20

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other ____
RUSH †
☐ †24-Hr ☑ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required PWSID # _____

ACCREDITED IN ACCORDANCE WITH nelac
ACCREDITED LABORATORY AIHA Environmental Lead & Industrial Hygiene

NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodward + Curran **RECEIVED BY:** CM **DATE:** 7/27/11

1) Was the chain(s) of custody relinquished and signed? (Yes) No **No CoC Included**

2) Does the chain agree with the samples? (Yes) No

If not, explain:

3) Are all the samples in good condition? (Yes) No

If not, explain:

4) How were the samples received:

On Ice ☒ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☒

Were the samples received in Temperature Compliance of (2-6°C)? (Yes) No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 2.9°C

5) Are there Dissolved samples for the lab to filter? Yes (No)

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? (Yes) No

Who was notified CEC Date 7/27/11 Time 16:23

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers			# of containers
1 Liter Amber			8 oz amber/clear jar	3 wipes.
500 mL Amber			4 oz amber/clear jar	
250 mL Amber (8oz amber)			2 oz amber/clear jar	
1 Liter Plastic			Air Cassette	
500 mL Plastic			Hg/Hopcalite Tube	
250 mL plastic			Plastic Bag / Ziploc	
40 mL Vial - type listed below			PM 2.5 / PM 10	
Colisure / bacteria bottle			PUF Cartridge	
Dissolved Oxygen bottle			SOC Kit	
Encore			TO-17 Tubes	
Flashpoint bottle			Non-ConTest Container	
Perchlorate Kit			Other glass jar	
Other			Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No (N/A) _____

Do all samples have the proper Base pH: Yes No (N/A) _____

Doc# 277

Rev. 1 May 2011

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11G0782
Project Location: UMASS - Webster Amherst, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11G0782-01 thru 11G0782-03

Matrices: Wipe

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes	☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes	☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes	☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes	☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes	☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☑ Yes	☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ Position: Laboratory Manager

Printed Name: Daren J. Damboragian Date: 07/29/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

August 2, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: UMASS-Webster Amherst, MA
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11G0888

Enclosed are results of analyses for samples received by the laboratory on July 29, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 8/2/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11G0888

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: UMASS-Webster Amherst, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VBC-074	11G0888-01	Concrete		SW-846 8082A	
WH-VBC-075	11G0888-02	Concrete		SW-846 8082A	
WH-VBC-076	11G0888-03	Concrete		SW-846 8082A	
WH-VBC-077	11G0888-04	Concrete		SW-846 8082A	
WH-VBC-078	11G0888-05	Concrete		SW-846 8082A	
WH-VBCD-079	11G0888-06	Concrete		SW-846 8082A	
WH-VBC-080	11G0888-07	Concrete		SW-846 8082A	
WH-VBS-081	11G0888-08	Concrete		SW-846 8082A	
WH-VBS-082	11G0888-09	Concrete		SW-846 8082A	
WH-VBC-083	11G0888-10	Concrete		SW-846 8082A	
WH-VBC-084	11G0888-11	Concrete		SW-846 8082A	
WH-VBS-085	11G0888-12	Concrete		SW-846 8082A	
WH-VBS-086	11G0888-13	Concrete		SW-846 8082A	
WH-VBSQ-087	11G0888-14	Water		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8082A

Qualifications:

Matrix spike and/or spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.

Analyte & Samples(s) Qualified:

Aroclor-1016, Aroclor-1016 [2C]

B034567-MS1, B034567-MSD1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Daren J. Damboragian
Laboratory Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBC-074 Sampled: 7/29/2011 08:40

Sample ID: 11G0888-01

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:06	JMB
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:06	JMB
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:06	JMB
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:06	JMB
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:06	JMB
Aroclor-1254 [2]	0.36	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:06	JMB
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:06	JMB
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:06	JMB
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:06	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	84.5	30-150		7/30/11 20:06
Decachlorobiphenyl [2]	83.3	30-150		7/30/11 20:06
Tetrachloro-m-xylene [1]	84.5	30-150		7/30/11 20:06
Tetrachloro-m-xylene [2]	83.3	30-150		7/30/11 20:06

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBC-075 Sampled: 7/29/2011 08:00

Sample ID: 11G0888-02

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:18	JMB
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:18	JMB
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:18	JMB
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:18	JMB
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:18	JMB
Aroclor-1254 [2]	0.45	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:18	JMB
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:18	JMB
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:18	JMB
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 20:18	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	77.3	30-150		7/30/11 20:18
Decachlorobiphenyl [2]	75.5	30-150		7/30/11 20:18
Tetrachloro-m-xylene [1]	83.9	30-150		7/30/11 20:18
Tetrachloro-m-xylene [2]	81.5	30-150		7/30/11 20:18

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBC-076 Sampled: 7/29/2011 08:15

Sample ID: 11G0888-03

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:09	JMB
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:09	JMB
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:09	JMB
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:09	JMB
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:09	JMB
Aroclor-1254 [2]	0.54	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:09	JMB
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:09	JMB
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:09	JMB
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:09	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	83.3	30-150		7/30/11 21:09
Decachlorobiphenyl [2]	80.9	30-150		7/30/11 21:09
Tetrachloro-m-xylene [1]	83.6	30-150		7/30/11 21:09
Tetrachloro-m-xylene [2]	82.5	30-150		7/30/11 21:09

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBC-077 Sampled: 7/29/2011 08:25

Sample ID: 11G0888-04

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:22	JMB
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:22	JMB
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:22	JMB
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:22	JMB
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:22	JMB
Aroclor-1254 [2]	0.96	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:22	JMB
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:22	JMB
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:22	JMB
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:22	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	82.5	30-150		7/30/11 21:22
Decachlorobiphenyl [2]	87.9	30-150		7/30/11 21:22
Tetrachloro-m-xylene [1]	95.3	30-150		7/30/11 21:22
Tetrachloro-m-xylene [2]	93.0	30-150		7/30/11 21:22

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBC-078 Sampled: 7/29/2011 08:30

Sample ID: 11G0888-05

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:35	JMB
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:35	JMB
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:35	JMB
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:35	JMB
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:35	JMB
Aroclor-1254 [2]	0.62	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:35	JMB
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:35	JMB
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:35	JMB
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:35	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	85.2	30-150		7/30/11 21:35
Decachlorobiphenyl [2]	83.2	30-150		7/30/11 21:35
Tetrachloro-m-xylene [1]	95.1	30-150		7/30/11 21:35
Tetrachloro-m-xylene [2]	92.5	30-150		7/30/11 21:35

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBCD-079 Sampled: 7/29/2011 08:30

Sample ID: 11G0888-06

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:47	JMB
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:47	JMB
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:47	JMB
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:47	JMB
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:47	JMB
Aroclor-1254 [2]	0.27	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:47	JMB
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:47	JMB
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:47	JMB
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 21:47	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	90.4	30-150		7/30/11 21:47
Decachlorobiphenyl [2]	88.7	30-150		7/30/11 21:47
Tetrachloro-m-xylene [1]	97.4	30-150		7/30/11 21:47
Tetrachloro-m-xylene [2]	95.1	30-150		7/30/11 21:47

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBC-080 Sampled: 7/29/2011 07:50

Sample ID: 11G0888-07

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:00	JMB
Aroclor-1221 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:00	JMB
Aroclor-1232 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:00	JMB
Aroclor-1242 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:00	JMB
Aroclor-1248 [2]	0.21	0.091	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:00	JMB
Aroclor-1254 [1]	0.18	0.091	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:00	JMB
Aroclor-1260 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:00	JMB
Aroclor-1262 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:00	JMB
Aroclor-1268 [1]	ND	0.091	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:00	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	85.7	30-150		7/30/11 22:00
Decachlorobiphenyl [2]	81.9	30-150		7/30/11 22:00
Tetrachloro-m-xylene [1]	89.4	30-150		7/30/11 22:00
Tetrachloro-m-xylene [2]	93.2	30-150		7/30/11 22:00

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBS-081 Sampled: 7/29/2011 09:15

Sample ID: 11G0888-08

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:13	JMB
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:13	JMB
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:13	JMB
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:13	JMB
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:13	JMB
Aroclor-1254 [1]	0.16	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:13	JMB
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:13	JMB
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:13	JMB
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:13	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	87.1	30-150		7/30/11 22:13
Decachlorobiphenyl [2]	85.6	30-150		7/30/11 22:13
Tetrachloro-m-xylene [1]	90.5	30-150		7/30/11 22:13
Tetrachloro-m-xylene [2]	88.7	30-150		7/30/11 22:13

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBS-082 Sampled: 7/29/2011 09:20

Sample ID: 11G0888-09

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:25	JMB
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:25	JMB
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:25	JMB
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:25	JMB
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:25	JMB
Aroclor-1254 [1]	0.12	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:25	JMB
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:25	JMB
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:25	JMB
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:25	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	75.5	30-150		7/30/11 22:25
Decachlorobiphenyl [2]	75.4	30-150		7/30/11 22:25
Tetrachloro-m-xylene [1]	80.2	30-150		7/30/11 22:25
Tetrachloro-m-xylene [2]	78.2	30-150		7/30/11 22:25

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBC-083 Sampled: 7/29/2011 09:25

Sample ID: 11G0888-10

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:38	JMB
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:38	JMB
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:38	JMB
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:38	JMB
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:38	JMB
Aroclor-1254 [1]	0.62	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:38	JMB
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:38	JMB
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:38	JMB
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:38	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	86.0	30-150		7/30/11 22:38
Decachlorobiphenyl [2]	83.2	30-150		7/30/11 22:38
Tetrachloro-m-xylene [1]	86.1	30-150		7/30/11 22:38
Tetrachloro-m-xylene [2]	85.8	30-150		7/30/11 22:38

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBC-084 Sampled: 7/29/2011 09:35

Sample ID: 11G0888-11

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:51	JMB
Aroclor-1221 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:51	JMB
Aroclor-1232 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:51	JMB
Aroclor-1242 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:51	JMB
Aroclor-1248 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:51	JMB
Aroclor-1254 [1]	0.62	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:51	JMB
Aroclor-1260 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:51	JMB
Aroclor-1262 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:51	JMB
Aroclor-1268 [1]	ND	0.095	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 22:51	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	85.1	30-150		7/30/11 22:51
Decachlorobiphenyl [2]	82.8	30-150		7/30/11 22:51
Tetrachloro-m-xylene [1]	85.0	30-150		7/30/11 22:51
Tetrachloro-m-xylene [2]	85.9	30-150		7/30/11 22:51

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBS-085 Sampled: 7/29/2011 09:40

Sample ID: 11G0888-12

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:03	JMB
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:03	JMB
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:03	JMB
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:03	JMB
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:03	JMB
Aroclor-1254 [2]	0.12	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:03	JMB
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:03	JMB
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:03	JMB
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:03	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	72.4	30-150		7/30/11 23:03
Decachlorobiphenyl [2]	70.8	30-150		7/30/11 23:03
Tetrachloro-m-xylene [1]	74.7	30-150		7/30/11 23:03
Tetrachloro-m-xylene [2]	74.8	30-150		7/30/11 23:03

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBS-086 Sampled: 7/29/2011 09:45

Sample ID: 11G0888-13

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:16	JMB
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:16	JMB
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:16	JMB
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:16	JMB
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:16	JMB
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:16	JMB
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:16	JMB
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:16	JMB
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	7/29/11	7/30/11 23:16	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	89.0	30-150		7/30/11 23:16
Decachlorobiphenyl [2]	87.3	30-150		7/30/11 23:16
Tetrachloro-m-xylene [1]	91.4	30-150		7/30/11 23:16
Tetrachloro-m-xylene [2]	88.8	30-150		7/30/11 23:16

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS-Webster Amherst, MA Sample Description: Work Order: 11G0888

Date Received: 7/29/2011

Field Sample #: WH-VBSQ-087 Sampled: 7/29/2011 09:55

Sample ID: 11G0888-14

Sample Matrix: Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/29/11	8/2/11 9:45	JMB
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/29/11	8/2/11 9:45	JMB
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/29/11	8/2/11 9:45	JMB
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/29/11	8/2/11 9:45	JMB
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/29/11	8/2/11 9:45	JMB
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/29/11	8/2/11 9:45	JMB
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/29/11	8/2/11 9:45	JMB
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/29/11	8/2/11 9:45	JMB
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	7/29/11	8/2/11 9:45	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	65.2	30-150		8/2/11 9:45
Decachlorobiphenyl [2]	75.4	30-150		8/2/11 9:45
Tetrachloro-m-xylene [1]	62.0	30-150		8/2/11 9:45
Tetrachloro-m-xylene [2]	59.4	30-150		8/2/11 9:45

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
11G0888-01 [WH-VBC-074]	B034567	2.00	10.0	07/29/11
11G0888-02 [WH-VBC-075]	B034567	2.10	10.0	07/29/11
11G0888-03 [WH-VBC-076]	B034567	2.10	10.0	07/29/11
11G0888-04 [WH-VBC-077]	B034567	2.10	10.0	07/29/11
11G0888-05 [WH-VBC-078]	B034567	2.00	10.0	07/29/11
11G0888-06 [WH-VBCD-079]	B034567	2.10	10.0	07/29/11
11G0888-07 [WH-VBC-080]	B034567	2.20	10.0	07/29/11
11G0888-08 [WH-VBS-081]	B034567	2.00	10.0	07/29/11
11G0888-09 [WH-VBS-082]	B034567	2.00	10.0	07/29/11
11G0888-10 [WH-VBC-083]	B034567	2.00	10.0	07/29/11
11G0888-11 [WH-VBC-084]	B034567	2.10	10.0	07/29/11
11G0888-12 [WH-VBS-085]	B034567	2.00	10.0	07/29/11
11G0888-13 [WH-VBS-086]	B034567	2.00	10.0	07/29/11

Prep Method: SW-846 3510C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
11G0888-14 [WH-VBSQ-087]	B034548	1000	10.0	07/29/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B034548 - SW-846 3510C										
Blank (B034548-BLK1)				Prepared: 07/29/11 Analyzed: 08/02/11						
Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	*1.20*		µg/L	2.00		60.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.37*		µg/L	2.00		68.6	30-150			
Surrogate: Tetrachloro-m-xylene	*1.29*		µg/L	2.00		64.7	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.17*		µg/L	2.00		58.4	30-150			
LCS (B034548-BS1)				Prepared: 07/29/11 Analyzed: 08/02/11						
Aroclor-1016	0.41	0.20	µg/L	0.500		81.6	40-140			
Aroclor-1016 [2C]	0.43	0.20	µg/L	0.500		86.4	40-140			
Aroclor-1260	0.40	0.20	µg/L	0.500		79.4	40-140			
Aroclor-1260 [2C]	0.43	0.20	µg/L	0.500		86.5	40-140			
Surrogate: Decachlorobiphenyl	*1.30*		µg/L	2.00		64.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.50*		µg/L	2.00		75.1	30-150			
Surrogate: Tetrachloro-m-xylene	*1.28*		µg/L	2.00		64.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.22*		µg/L	2.00		61.1	30-150			
LCS Dup (B034548-BSD1)				Prepared: 07/29/11 Analyzed: 08/02/11						
Aroclor-1016	0.40	0.20	µg/L	0.500		80.5	40-140	1.45	20	
Aroclor-1016 [2C]	0.43	0.20	µg/L	0.500		85.4	40-140	1.16	20	
Aroclor-1260	0.38	0.20	µg/L	0.500		76.5	40-140	3.72	20	
Aroclor-1260 [2C]	0.42	0.20	µg/L	0.500		83.2	40-140	3.83	20	
Surrogate: Decachlorobiphenyl	*1.20*		µg/L	2.00		59.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.39*		µg/L	2.00		69.6	30-150			
Surrogate: Tetrachloro-m-xylene	*1.26*		µg/L	2.00		63.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.21*		µg/L	2.00		60.7	30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B034567 - SW-846 3540C										
Blank (B034567-BLK1)				Prepared: 07/29/11 Analyzed: 07/30/11						
Aroclor-1016	ND	0.10	mg/Kg							
Aroclor-1016 [2C]	ND	0.10	mg/Kg							
Aroclor-1221	ND	0.10	mg/Kg							
Aroclor-1221 [2C]	ND	0.10	mg/Kg							
Aroclor-1232	ND	0.10	mg/Kg							
Aroclor-1232 [2C]	ND	0.10	mg/Kg							
Aroclor-1242	ND	0.10	mg/Kg							
Aroclor-1242 [2C]	ND	0.10	mg/Kg							
Aroclor-1248	ND	0.10	mg/Kg							
Aroclor-1248 [2C]	ND	0.10	mg/Kg							
Aroclor-1254	ND	0.10	mg/Kg							
Aroclor-1254 [2C]	ND	0.10	mg/Kg							
Aroclor-1260	ND	0.10	mg/Kg							
Aroclor-1260 [2C]	ND	0.10	mg/Kg							
Aroclor-1262	ND	0.10	mg/Kg							
Aroclor-1262 [2C]	ND	0.10	mg/Kg							
Aroclor-1268	ND	0.10	mg/Kg							
Aroclor-1268 [2C]	ND	0.10	mg/Kg							
Surrogate: Decachlorobiphenyl	*0.771*		mg/Kg	1.00		77.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.752*		mg/Kg	1.00		75.2	30-150			
Surrogate: Tetrachloro-m-xylene	*0.876*		mg/Kg	1.00		87.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.847*		mg/Kg	1.00		84.7	30-150			
LCS (B034567-BS1)				Prepared: 07/29/11 Analyzed: 07/30/11						
Aroclor-1016	0.22	0.10	mg/Kg	0.250		86.6	40-140			
Aroclor-1016 [2C]	0.23	0.10	mg/Kg	0.250		93.5	40-140			
Aroclor-1260	0.21	0.10	mg/Kg	0.250		84.6	40-140			
Aroclor-1260 [2C]	0.25	0.10	mg/Kg	0.250		101	40-140			
Surrogate: Decachlorobiphenyl	*0.876*		mg/Kg	1.00		87.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.860*		mg/Kg	1.00		86.0	30-150			
Surrogate: Tetrachloro-m-xylene	*0.927*		mg/Kg	1.00		92.7	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.904*		mg/Kg	1.00		90.4	30-150			
LCS Dup (B034567-BSD1)				Prepared: 07/29/11 Analyzed: 07/30/11						
Aroclor-1016	0.25	0.10	mg/Kg	0.250		98.8	40-140	13.1	30	
Aroclor-1016 [2C]	0.25	0.10	mg/Kg	0.250		101	40-140	8.19	30	
Aroclor-1260	0.22	0.10	mg/Kg	0.250		89.3	40-140	5.36	30	
Aroclor-1260 [2C]	0.25	0.10	mg/Kg	0.250		99.4	40-140	1.33	30	
Surrogate: Decachlorobiphenyl	*0.864*		mg/Kg	1.00		86.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.849*		mg/Kg	1.00		84.9	30-150			
Surrogate: Tetrachloro-m-xylene	*0.921*		mg/Kg	1.00		92.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.894*		mg/Kg	1.00		89.4	30-150			

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B034567 - SW-846 3540C											
Matrix Spike (B034567-MS1)		**Source: 11G0888-05**		Prepared: 07/29/11 Analyzed: 07/30/11							
Aroclor-1016	0.45	0.10	mg/Kg	0.250	0.0	**182**	*	40-140			MS-21
Aroclor-1016 [2C]	0.56	0.10	mg/Kg	0.250	0.0	**223**	*	40-140			MS-21
Aroclor-1260	0.23	0.10	mg/Kg	0.250	0.0	92.2		40-140			
Aroclor-1260 [2C]	0.22	0.10	mg/Kg	0.250	0.0	87.0		40-140			
Surrogate: Decachlorobiphenyl	*0.753*		mg/Kg	1.00		75.3		30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.740*		mg/Kg	1.00		74.0		30-150			
Surrogate: Tetrachloro-m-xylene	*0.819*		mg/Kg	1.00		81.9		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.802*		mg/Kg	1.00		80.2		30-150			
Matrix Spike Dup (B034567-MSD1)		**Source: 11G0888-05**		Prepared: 07/29/11 Analyzed: 07/30/11							
Aroclor-1016	0.43	0.10	mg/Kg	0.250	0.0	**171**	*	40-140	5.92	50	MS-21
Aroclor-1016 [2C]	0.54	0.10	mg/Kg	0.250	0.0	**215**	*	40-140	3.48	50	MS-21
Aroclor-1260	0.24	0.10	mg/Kg	0.250	0.0	96.7		40-140	4.74	50	
Aroclor-1260 [2C]	0.26	0.10	mg/Kg	0.250	0.0	105		40-140	18.4	50	
Surrogate: Decachlorobiphenyl	*0.834*		mg/Kg	1.00		83.4		30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.811*		mg/Kg	1.00		81.1		30-150			
Surrogate: Tetrachloro-m-xylene	*0.862*		mg/Kg	1.00		86.2		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.840*		mg/Kg	1.00		84.0		30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
MS-21	Matrix spike and/or spike duplicate recovery bias high due to contribution of other Aroclors present in the source sample.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Product/Solid	
Aroclor-1016	CT,NH,NY,ME,NC
Aroclor-1016 [2C]	CT,NH,NY,ME,NC
Aroclor-1221	CT,NH,NY,ME,NC
Aroclor-1221 [2C]	CT,NH,NY,ME,NC
Aroclor-1232	CT,NH,NY,ME,NC
Aroclor-1232 [2C]	CT,NH,NY,ME,NC
Aroclor-1242	CT,NH,NY,ME,NC
Aroclor-1242 [2C]	CT,NH,NY,ME,NC
Aroclor-1248	CT,NH,NY,ME,NC
Aroclor-1248 [2C]	CT,NH,NY,ME,NC
Aroclor-1254	CT,NH,NY,ME,NC
Aroclor-1254 [2C]	CT,NH,NY,ME,NC
Aroclor-1260	CT,NH,NY,ME,NC
Aroclor-1260 [2C]	CT,NH,NY,ME,NC
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,RI,NC,ME
Aroclor-1016 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1221	CT,NH,NY,RI,NC,ME
Aroclor-1221 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1232	CT,NH,NY,RI,NC,ME
Aroclor-1232 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1242	CT,NH,NY,RI,NC,ME
Aroclor-1242 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1248	CT,NH,NY,RI,NC,ME
Aroclor-1248 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1254	CT,NH,NY,RI,NC,ME
Aroclor-1254 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1260	CT,NH,NY,RI,NC,ME
Aroclor-1260 [2C]	CT,NH,NY,RI,NC,ME
Aroclor-1262	NC
Aroclor-1262 [2C]	NC
Aroclor-1268	NC
Aroclor-1268 [2C]	NC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

CHAIN OF CUSTODY RECORD

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

Page 1 of 2

11G0888

Company Name: WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR, SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER AMHERST, MA
Sampled By: J. REAM

Telephone: 1(978)557-8150
Project #: 22419
Client PO#:

DATA DELIVERY (check all that apply)
○ FAX ● EMAIL ○ WEBSITE
Fax # gfranklin@
Email: jhamel@woodardcurran.com
Format: ● PDF ● EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCB's (Soxhlet)	# of Containers	** Preservation	***Container Code
-1	WH-VBC-074	7/29/11	0840		✓	O	L	X			
-2	WH-VBC-075		0800		✓	O	L	X			
-3	WH-VBC-076		0815		✓	O	L	X			
-4	WH-VBC-077		0825		✓	O	L	X			
-5	WH-VBC-078		0830		✓	O	L	X			
-6	WH-VBCD-079		0830		✓	O	L	X			
-7	WH-VBC-080		0750		✓	O	L	X			
-8	WH-VBS-081		~~0840~~ 0915		✓	O	L	X			
-9	WH-VBS-082		0920		✓	O	L	X			
-10	WH-VBC-083		0925		✓	O	L	X			

ANALYSIS REQUESTED

Comments: PCB's by USEPA 8082 via 3540c (Soxhlet)
R.L. ≤ 1.0 mg/kg.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Relinquished by: (signature)	Date/Time:
[signature]	7/29/11
Received by: (signature) [signature]	Date/Time: 7/29/11 1445
Relinquished by: (signature) [signature]	Date/Time: 7/29/11 1600
Received by: (signature) [signature] 3-0°C	Date/Time: 7/29/11 1620

Turnaround ††
☐ 7-Day
☐ 10-Day
☐ Other ____
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts: _____
Connecticut: _____
Other: _____

Is your project MCP or RCP ?
○ MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required PWSID # _____

NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028

11G0888

Company Name: WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR, SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER AMHERST, MA
Sampled By: J. REAM

Telephone: 1(978)557-8150
Project # 224189
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ✓ EMAIL ○ WEBSITE
Fax # gfranklin@woodardcurran.com
Email: jhamel@
Format: ✓ PDF ✓ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCB's (Soxhlet)										
-11	WH-VBC-084	7/29/11	0935		✓	O	L	X										
-12	WH-VBS-085	↓	0940		✓	O	L	X										
-13	WH-VBS-086	↓	0945		✓	O	L	X										
-14	WH-VBSQ-087	↓	0955		✓	O	L	X										

ANALYSIS REQUESTED

I																		
I																		
A																		

# of Containers
** Preservation
***Container Code

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Comments: PCB's by USEPA 8082 via 3540c (Soxhlet)
R.L. ≤ 1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:
Jesse Arboy R	7/29/11
Received by: (signature)	Date/Time:
Ed Tehula	7/29/11 1445
Relinquished by: (signature)	Date/Time:
Ed Tehula	7/29/11 1620
Received by: (signature)	Date/Time:
[signature] 3-0°	7/29/11 16:20

Turnaround ††
☐ 7-Day
☐ 10-Day
☐ Other ____
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required PWSID # W

nelac AIHA
NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard + Curran **RECEIVED BY:** GB **DATE:** 7/29/14

1) Was the chain(s) of custody relinquished and signed? Yes No No CoC Included

2) Does the chain agree with the samples? Yes No

If not, explain:

3) Are all the samples in good condition? Yes No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank 3-0°C Temperature °C by Temp gun _____

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 17

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber	2	8 oz amber/clear jar	13
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

Doc# 277

Rev. 1 May 2011

11G0888-01 WH-VBC-074

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.36	0.280445	24.8
Surrogates			
Decachlorobiphenyl	0.845	0.832615	1.48
Tetrachloro-m-xylene	0.845	0.832615	1.48

11G0888-02 WH-VBC-075

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.45	0.4012714	11.4
Surrogates			
Decachlorobiphenyl	0.736	0.7195191	2.26
Tetrachloro-m-xylene	0.799	0.7758524	2.94

11G0888-03 WH-VBC-076

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.54	0.4690572	14.1
Surrogates			
Decachlorobiphenyl	0.793	0.7708905	2.83
Tetrachloro-m-xylene	0.796	0.7856143	1.31

11G0888-04 WH-VBC-077

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.96	0.7620143	23
Surrogates			
Decachlorobiphenyl	0.785	0.8373	6.45
Tetrachloro-m-xylene	0.908	0.8853477	2.53

11G0888-05 WH-VBC-078

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.62	0.535565	14.6
Surrogates			
Decachlorobiphenyl	0.852	0.83174	2.41
Tetrachloro-m-xylene	0.951	0.925285	2.74

11G0888-06 WH-VBCD-079

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.27	0.2007	29.4
Surrogates			
Decachlorobiphenyl	0.861	0.8446477	1.92
Tetrachloro-m-xylene	0.927	0.9059096	2.3

11G0888-07 WH-VBC-080

Analyte	Results		%RPD
Aroclor-1254	0.18	0.2252864	22.3
Aroclor-1248 [2C]	0.21	0.1960682	6.86
Surrogates			
Decachlorobiphenyl	0.779	0.7445773	4.52
Tetrachloro-m-xylene	0.813	0.8472682	4.13

11G0888-08 WH-VBS-081

Analyte	Results		%RPD
Aroclor-1254	0.16	0.14223	11.8
Surrogates			
Decachlorobiphenyl	0.871	0.85635	1.7
Tetrachloro-m-xylene	0.905	0.887405	1.96

11G0888-09 WH-VBS-082

Analyte	Results		%RPD
Aroclor-1254	0.12	0.113515	5.55
Surrogates			

Decachlorobiphenyl	0.755	0.754285	0.0947
Tetrachloro-m-xylene	0.802	0.781935	2.53

11G0888-10 WH-VBC-083

Analyte	Results		%RPD
Aroclor-1254	0.62	0.569285	8.53
Surrogates			
Decachlorobiphenyl	0.860	0.831885	3.32
Tetrachloro-m-xylene	0.861	0.85849	0.292

11G0888-11 WH-VBC-084

Analyte	Results		%RPD
Aroclor-1254	0.62	0.6065381	2.2
Surrogates			
Tetrachloro-m-xylene	0.809	0.8180143	1.11
Decachlorobiphenyl	0.810	0.7888953	2.64

11G0888-12 WH-VBS-085

Analyte	Results		%RPD
Aroclor-1254 [2C]	0.12	0.12322	2.65
Surrogates			
Decachlorobiphenyl	0.724	0.70773	2.27
Tetrachloro-m-xylene	0.747	0.747735	0.0983

11G0888-13 WH-VBS-086

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	0.890	0.872675	1.97
Tetrachloro-m-xylene	0.914	0.88839	2.84

11G0888-14 WH-VBSQ-087

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	1.30	1.50873	14.9
Tetrachloro-m-xylene	1.24	1.18889	4.21

B034548-BLK1 Blank

Analyte	Results		%RPD
Aroclor-1016 (1)	1.2	0.15229	155
Surrogates			
Decachlorobiphenyl	1.20	1.37126	13.3
Tetrachloro-m-xylene	1.29	1.16764	9.96

B034548-BS1 LCS

Analyte	Results		%RPD
Aroclor-1260	0.40	0.43235	7.77
Aroclor-1016	0.41	0.432	5.23
Surrogates			
Decachlorobiphenyl	1.30	1.50117	14.4
Tetrachloro-m-xylene	1.28	1.22189	4.65

B034548-BSD1 LCS Dup

Analyte	Results		%RPD
Aroclor-1016	0.40	0.427	6.53
Aroclor-1260	0.38	0.4161	9.07
Surrogates			
Tetrachloro-m-xylene	1.26	1.21453	3.68
Decachlorobiphenyl	1.20	1.39254	14.9

B034567-BLK1 Blank

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	0.876	0.846885	3.38

Decachlorobiphenyl	0.771	0.752445	2.44

B034567-BS1 LCS

Analyte		Results	%RPD
Aroclor-1016	0.22	0.23363	6.01
Aroclor-1260	0.21	0.25182	18.1
Surrogates			
Decachlorobiphenyl	0.876	0.859645	1.88
Tetrachloro-m-xylene	0.927	0.904205	2.49

B034567-BSD1 LCS Dup

Analyte		Results	%RPD
Aroclor-1260	0.22	0.2485	12.2
Aroclor-1016	0.25	0.253585	1.42
Surrogates			
Decachlorobiphenyl	0.864	0.848985	1.75
Tetrachloro-m-xylene	0.921	0.894025	2.97

B034567-MS1 Matrix Spike

Analyte		Results	%RPD
Aroclor-1260	0.23	0.217575	5.55
Aroclor-1016	0.45	0.557765	21.4
Surrogates			
Decachlorobiphenyl	0.753	0.740065	1.73
Tetrachloro-m-xylene	0.819	0.80218	2.08

B034567-MSD1 Matrix Spike Dup

Analyte		Results	%RPD
Aroclor-1016	0.43	0.538685	22.4
Aroclor-1260	0.24	0.26174	8.67
Surrogates			
Tetrachloro-m-xylene	0.862	0.840035	2.58
Decachlorobiphenyl	0.834	0.811245	2.77

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11G0888
Project Location: UMASS-Webster Amherst, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11G0888-01 thru 11G0888-14

Matrices: Product/Solid Water

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes ☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes ☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes ☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes ☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes ☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes ☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☐ Yes ☑ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ Position: Laboratory Manager

Printed Name: Daren J. Damboragian Date: 08/02/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

August 3, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: Amherst, MA
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11G0891

Enclosed are results of analyses for samples received by the laboratory on July 29, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 8/3/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11G0891

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Amherst, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VWS-087	11G0891-01	Wipe		SW-846 8082A	
WH-VWS-088	11G0891-02	Wipe		SW-846 8082A	
WH-VWS-090	11G0891-03	Wipe		SW-846 8082A	
WH-VWS-091	11G0891-04	Wipe		SW-846 8082A	
WH-VWS-092	11G0891-05	Wipe		SW-846 8082A	
WH-VWS-093	11G0891-06	Wipe		SW-846 8082A	
WH-VWS-094	11G0891-07	Wipe		SW-846 8082A	
WH-VWS-095	11G0891-08	Wipe		SW-846 8082A	
WH-VWS-096	11G0891-09	Wipe		SW-846 8082A	
WH-VWS-097	11G0891-10	Wipe		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

REVISED REPORT - 08/03/2011 - Sample IDs revised per clients request.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Meghan E. Kelley
Project Chemist

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11G0891

Date Received: 7/29/2011

Field Sample #: WH-VWS-087
Sampled: 7/29/2011 15:20

Sample ID: 11G0891-01

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 13:44	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 13:44	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 13:44	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 13:44	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 13:44	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 13:44	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 13:44	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 13:44	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 13:44	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	86.5	30-150		7/30/11 13:44
Decachlorobiphenyl [2]	86.6	30-150		7/30/11 13:44
Tetrachloro-m-xylene [1]	88.0	30-150		7/30/11 13:44
Tetrachloro-m-xylene [2]	89.7	30-150		7/30/11 13:44

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11G0891

Date Received: 7/29/2011

Field Sample #: WH-VWS-088
Sampled: 7/29/2011 15:23

Sample ID: 11G0891-02

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:35	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:35	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:35	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:35	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:35	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:35	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:35	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:35	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:35	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	150	30-150		7/30/11 14:35
Decachlorobiphenyl [2]	145	30-150		7/30/11 14:35
Tetrachloro-m-xylene [1]	146	30-150		7/30/11 14:35
Tetrachloro-m-xylene [2]	146	30-150		7/30/11 14:35

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11G0891

Date Received: 7/29/2011

Field Sample #: WH-VWS-090
Sampled: 7/29/2011 15:24

Sample ID: 11G0891-03

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:47	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:47	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:47	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:47	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:47	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:47	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:47	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:47	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 14:47	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	86.7	30-150		7/30/11 14:47
Decachlorobiphenyl [2]	85.0	30-150		7/30/11 14:47
Tetrachloro-m-xylene [1]	84.6	30-150		7/30/11 14:47
Tetrachloro-m-xylene [2]	87.2	30-150		7/30/11 14:47

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11G0891

Date Received: 7/29/2011

Field Sample #: WH-VWS-091
Sampled: 7/29/2011 15:32

Sample ID: 11G0891-04

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:00	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:00	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:00	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:00	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:00	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:00	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:00	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:00	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:00	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	85.2	30-150		7/30/11 15:00
Decachlorobiphenyl [2]	83.1	30-150		7/30/11 15:00
Tetrachloro-m-xylene [1]	84.2	30-150		7/30/11 15:00
Tetrachloro-m-xylene [2]	84.7	30-150		7/30/11 15:00

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11G0891

Date Received: 7/29/2011

Field Sample #: WH-VWS-092
Sampled: 7/29/2011 15:35

Sample ID: 11G0891-05

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:13	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:13	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:13	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:13	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:13	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:13	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:13	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:13	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:13	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	86.3	30-150		7/30/11 15:13
Decachlorobiphenyl [2]	85.4	30-150		7/30/11 15:13
Tetrachloro-m-xylene [1]	87.3	30-150		7/30/11 15:13
Tetrachloro-m-xylene [2]	86.5	30-150		7/30/11 15:13

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11G0891

Date Received: 7/29/2011

Field Sample #: WH-VWS-093
Sampled: 7/29/2011 15:38

Sample ID: 11G0891-06

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:26	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:26	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:26	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:26	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:26	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:26	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:26	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:26	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:26	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	80.8	30-150		7/30/11 15:26
Decachlorobiphenyl [2]	80.1	30-150		7/30/11 15:26
Tetrachloro-m-xylene [1]	82.3	30-150		7/30/11 15:26
Tetrachloro-m-xylene [2]	83.2	30-150		7/30/11 15:26

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11G0891

Date Received: 7/29/2011

Field Sample #: WH-VWS-094
Sampled: 7/29/2011 15:41

Sample ID: 11G0891-07

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:38	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:38	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:38	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:38	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:38	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:38	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:38	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:38	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:38	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	81.0	30-150		7/30/11 15:38
Decachlorobiphenyl [2]	78.5	30-150		7/30/11 15:38
Tetrachloro-m-xylene [1]	83.1	30-150		7/30/11 15:38
Tetrachloro-m-xylene [2]	83.8	30-150		7/30/11 15:38

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11G0891

Date Received: 7/29/2011

Field Sample #: WH-VWS-095
Sampled: 7/29/2011 15:45

Sample ID: 11G0891-08

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:51	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:51	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:51	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:51	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:51	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:51	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:51	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:51	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 15:51	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	76.4	30-150		7/30/11 15:51
Decachlorobiphenyl [2]	75.4	30-150		7/30/11 15:51
Tetrachloro-m-xylene [1]	80.3	30-150		7/30/11 15:51
Tetrachloro-m-xylene [2]	78.0	30-150		7/30/11 15:51

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11G0891

Date Received: 7/29/2011

Field Sample #: WH-VWS-096
Sampled: 7/29/2011 15:48

Sample ID: 11G0891-09

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:04	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:04	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:04	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:04	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:04	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:04	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:04	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:04	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:04	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	79.7	30-150		7/30/11 16:04
Decachlorobiphenyl [2]	78.2	30-150		7/30/11 16:04
Tetrachloro-m-xylene [1]	80.1	30-150		7/30/11 16:04
Tetrachloro-m-xylene [2]	80.0	30-150		7/30/11 16:04

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Amherst, MA
Sample Description:
Work Order: 11G0891

Date Received: 7/29/2011

Field Sample #: WH-VWS-097
Sampled: 7/29/2011 15:50

Sample ID: 11G0891-10

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:17	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:17	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:17	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:17	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:17	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:17	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:17	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:17	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/29/11	7/30/11 16:17	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	71.0	30-150		7/30/11 16:17
Decachlorobiphenyl [2]	70.4	30-150		7/30/11 16:17
Tetrachloro-m-xylene [1]	73.1	30-150		7/30/11 16:17
Tetrachloro-m-xylene [2]	72.2	30-150		7/30/11 16:17

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [Wipe]	Final [mL]	Date
11G0891-01 [WH-VWS-087]	B034566	1.00	10.0	07/29/11
11G0891-02 [WH-VWS-088]	B034566	1.00	10.0	07/29/11
11G0891-03 [WH-VWS-090]	B034566	1.00	10.0	07/29/11
11G0891-04 [WH-VWS-091]	B034566	1.00	10.0	07/29/11
11G0891-05 [WH-VWS-092]	B034566	1.00	10.0	07/29/11
11G0891-06 [WH-VWS-093]	B034566	1.00	10.0	07/29/11
11G0891-07 [WH-VWS-094]	B034566	1.00	10.0	07/29/11
11G0891-08 [WH-VWS-095]	B034566	1.00	10.0	07/29/11
11G0891-09 [WH-VWS-096]	B034566	1.00	10.0	07/29/11
11G0891-10 [WH-VWS-097]	B034566	1.00	10.0	07/29/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B034566 - SW-846 3540C										
Blank (B034566-BLK1)				Prepared: 07/29/11 Analyzed: 07/30/11						
Aroclor-1016	ND	0.20	µg/Wipe							
Aroclor-1016 [2C]	ND	0.20	µg/Wipe							
Aroclor-1221	ND	0.20	µg/Wipe							
Aroclor-1221 [2C]	ND	0.20	µg/Wipe							
Aroclor-1232	ND	0.20	µg/Wipe							
Aroclor-1232 [2C]	ND	0.20	µg/Wipe							
Aroclor-1242	ND	0.20	µg/Wipe							
Aroclor-1242 [2C]	ND	0.20	µg/Wipe							
Aroclor-1248	ND	0.20	µg/Wipe							
Aroclor-1248 [2C]	ND	0.20	µg/Wipe							
Aroclor-1254	ND	0.20	µg/Wipe							
Aroclor-1254 [2C]	ND	0.20	µg/Wipe							
Aroclor-1260	ND	0.20	µg/Wipe							
Aroclor-1260 [2C]	ND	0.20	µg/Wipe							
Aroclor-1262	ND	0.20	µg/Wipe							
Aroclor-1262 [2C]	ND	0.20	µg/Wipe							
Aroclor-1268	ND	0.20	µg/Wipe							
Aroclor-1268 [2C]	ND	0.20	µg/Wipe							
Surrogate: Decachlorobiphenyl	*1.86*		µg/Wipe	2.00		93.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.83*		µg/Wipe	2.00		91.4	30-150			
Surrogate: Tetrachloro-m-xylene	*1.89*		µg/Wipe	2.00		94.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.83*		µg/Wipe	2.00		91.5	30-150			
LCS (B034566-BS1)				Prepared: 07/29/11 Analyzed: 07/30/11						
Aroclor-1016	0.52	0.20	µg/Wipe	0.500		104	40-140			
Aroclor-1016 [2C]	0.50	0.20	µg/Wipe	0.500		100	40-140			
Aroclor-1260	0.43	0.20	µg/Wipe	0.500		86.2	40-140			
Aroclor-1260 [2C]	0.48	0.20	µg/Wipe	0.500		96.4	40-140			
Surrogate: Decachlorobiphenyl	*1.72*		µg/Wipe	2.00		85.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.66*		µg/Wipe	2.00		83.2	30-150			
Surrogate: Tetrachloro-m-xylene	*1.78*		µg/Wipe	2.00		88.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.73*		µg/Wipe	2.00		86.7	30-150			
LCS Dup (B034566-BSD1)				Prepared: 07/29/11 Analyzed: 07/30/11						
Aroclor-1016	0.53	0.20	µg/Wipe	0.500		105	40-140	0.657	30	
Aroclor-1016 [2C]	0.51	0.20	µg/Wipe	0.500		102	40-140	2.08	30	
Aroclor-1260	0.45	0.20	µg/Wipe	0.500		89.3	40-140	3.45	30	
Aroclor-1260 [2C]	0.51	0.20	µg/Wipe	0.500		103	40-140	6.44	30	
Surrogate: Decachlorobiphenyl	*1.82*		µg/Wipe	2.00		91.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.76*		µg/Wipe	2.00		87.9	30-150			
Surrogate: Tetrachloro-m-xylene	*1.88*		µg/Wipe	2.00		93.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.83*		µg/Wipe	2.00		91.7	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications

No certified Analyses included in this Report

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

CHAIN OF CUSTODY RECORD

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

11G0841

Company Name: WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR, SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER AMHERST, MA
Sampled By: J. REAM

Telephone: 1(978) 557-8150
Project # 224189
Client PO#

DATA DELIVERY (check all that apply)
O FAX ✓ EMAIL O WEBSITE
Fax # gfranklin@woodardcurran.com
Email:
Format: O PDF O EXCEL O GIS
O OTHER
O "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
O yes _____ proposal date

ANALYSIS REQUESTED

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCB's Soxhlet	# of Containers	** Preservation	***Container Code
-01	WH-VWS-087	7/29/11	1520		✓	O	L	X	1	I	A
-02	WH-VWS-088		1523		✓	O	L	X			
-03	WH-VWS-090		1529		✓	O	L	X			
-04	WH-VWS-091		1532		✓	O	L	X			
-05	WH-VWS-092		1535		✓	O	L	X			
-06	WH-VWS-093		1538		✓	O	L	X			
-07	WH-VWS-094		1541		✓	O	L	X			
-08	WH-VWS-095		1545		✓	O	L	X			
-09	WH-VWS-096		1548		✓	O	L	X			
-10	WH-VWS-097		1550		✓	O	L	X			

Comments: PCB's by USEPA 8082 via 3540c (Soxhlet)
R.L. ≤ 1.0 mg/kg

Dissolved Metals
O Field Filtered
O Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 7/29/11
Received by: (signature)	Date/Time: 1715 7/29/11
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Turnaround ††
❒ 7-Day
❒ 10-Day
❒ Other ____
RUSH
❒ †24-Hr ☑ †48-Hr
❒ †72-Hr ❒ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
O MCP Analytical Certification Form Required
O RCP Analysis Certification Form Required
O MA State DW Form Required PWSID # _____

ACCREDITED IN ACCORDANCE WITH nelac
ACCREDITED LABORATORY AIHA
NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard & Curran **RECEIVED BY:** CEC **DATE:** 7/29/11

1) Was the chain(s) of custody relinquished and signed? Yes No No CoC Included

2) Does the chain agree with the samples? Yes No

If not, explain:

3) Are all the samples in good condition? Yes No

If not, explain:

4) How were the samples received:

On Ice ☐ Direct from Sampling ☑ Ambient ☑ In Cooler(s) ☐

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 23.3°C

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified CXF Date 7/29/11 Time 17:5

7) Location where samples are stored: 14

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	10
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____
Bisulfate _____ # DI Water _____
Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

Doc# 277

Rev. 1 May

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11G0891
Project Location: Amherst, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11G0891-01 thru 11G0891-10

Matrices: Wipe

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes	☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes	☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes	☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes	☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes	☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☑ Yes	☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ Position: Laboratory Manager

Printed Name: Daren J. Damboragian Date: 08/02/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

August 3, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: UMASS - Webster Amherst, MA
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11H0030

Enclosed are results of analyses for samples received by the laboratory on August 1, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 8/3/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11H0030

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: UMASS - Webster Amherst, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VWS-089	11H0030-01	Wipe		SW-846 8082A	
WH-VWS-098	11H0030-02	Wipe		SW-846 8082A	
WH-VWSD-099	11H0030-03	Wipe		SW-846 8082A	
WH-VWS-100	11H0030-04	Wipe		SW-846 8082A	
WH-VWS-101	11H0030-05	Wipe		SW-846 8082A	
WH-VWS-102	11H0030-06	Wipe		SW-846 8082A	
WH-VWS-103	11H0030-07	Wipe		SW-846 8082A	
WH-VWS-104	11H0030-08	Wipe		SW-846 8082A	
WH-VWS-110	11H0030-09	Wipe		SW-846 8082A	
WH-VWS-111	11H0030-10	Wipe		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Daren J. Damboragian
Laboratory Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0030

Date Received: 8/1/2011

Field Sample #: WH-VWS-089 Sampled: 8/1/2011 08:00

Sample ID: 11H0030-01

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:43	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:43	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:43	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:43	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:43	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:43	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:43	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:43	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:43	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	96.4	30-150		8/2/11 22:43
Decachlorobiphenyl [2]	96.1	30-150		8/2/11 22:43
Tetrachloro-m-xylene [1]	102	30-150		8/2/11 22:43
Tetrachloro-m-xylene [2]	101	30-150		8/2/11 22:43

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0030

Date Received: 8/1/2011

Field Sample #: WH-VWS-098 Sampled: 8/1/2011 08:03

Sample ID: 11H0030-02

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:56	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:56	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:56	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:56	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:56	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:56	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:56	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:56	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 22:56	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	91.4	30-150		8/2/11 22:56
Decachlorobiphenyl [2]	92.8	30-150		8/2/11 22:56
Tetrachloro-m-xylene [1]	93.9	30-150		8/2/11 22:56
Tetrachloro-m-xylene [2]	94.3	30-150		8/2/11 22:56

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0030

Date Received: 8/1/2011

Field Sample #: WH-VWSD-099 Sampled: 8/1/2011 08:03

Sample ID: 11H0030-03

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:09	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:09	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:09	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:09	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:09	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:09	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:09	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:09	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:09	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	96.0	30-150		8/2/11 23:09
Decachlorobiphenyl [2]	98.4	30-150		8/2/11 23:09
Tetrachloro-m-xylene [1]	101	30-150		8/2/11 23:09
Tetrachloro-m-xylene [2]	101	30-150		8/2/11 23:09

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0030

Date Received: 8/1/2011

Field Sample #: WH-VWS-100 Sampled: 8/1/2011 08:06

Sample ID: 11H0030-04

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:22	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:22	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:22	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:22	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:22	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:22	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:22	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:22	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:22	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	94.8	30-150		8/2/11 23:22
Decachlorobiphenyl [2]	97.4	30-150		8/2/11 23:22
Tetrachloro-m-xylene [1]	100	30-150		8/2/11 23:22
Tetrachloro-m-xylene [2]	101	30-150		8/2/11 23:22

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0030

Date Received: 8/1/2011

Field Sample #: WH-VWS-101 Sampled: 8/1/2011 08:09

Sample ID: 11H0030-05

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:34	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:34	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:34	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:34	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:34	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:34	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:34	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:34	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:34	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	88.1	30-150		8/2/11 23:34
Decachlorobiphenyl [2]	91.4	30-150		8/2/11 23:34
Tetrachloro-m-xylene [1]	93.5	30-150		8/2/11 23:34
Tetrachloro-m-xylene [2]	93.9	30-150		8/2/11 23:34

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0030

Date Received: 8/1/2011

Field Sample #: WH-VWS-102 Sampled: 8/1/2011 08:12

Sample ID: 11H0030-06

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:47	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:47	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:47	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:47	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:47	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:47	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:47	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:47	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/2/11 23:47	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	86.7	30-150		8/2/11 23:47
Decachlorobiphenyl [2]	89.6	30-150		8/2/11 23:47
Tetrachloro-m-xylene [1]	91.9	30-150		8/2/11 23:47
Tetrachloro-m-xylene [2]	93.3	30-150		8/2/11 23:47

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0030

Date Received: 8/1/2011

Field Sample #: WH-VWS-103 Sampled: 8/1/2011 08:15

Sample ID: 11H0030-07

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:00	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:00	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:00	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:00	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:00	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:00	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:00	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:00	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:00	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	87.2	30-150		8/3/11 0:00
Decachlorobiphenyl [2]	90.6	30-150		8/3/11 0:00
Tetrachloro-m-xylene [1]	93.2	30-150		8/3/11 0:00
Tetrachloro-m-xylene [2]	94.4	30-150		8/3/11 0:00

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0030

Date Received: 8/1/2011

Field Sample #: WH-VWS-104 Sampled: 8/1/2011 08:18

Sample ID: 11H0030-08

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:12	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:12	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:12	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:12	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:12	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:12	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:12	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:12	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 0:12	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	95.9	30-150		8/3/11 0:12
Decachlorobiphenyl [2]	98.8	30-150		8/3/11 0:12
Tetrachloro-m-xylene [1]	99.7	30-150		8/3/11 0:12
Tetrachloro-m-xylene [2]	101	30-150		8/3/11 0:12

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0030

Date Received: 8/1/2011

Field Sample #: WH-VWS-110 Sampled: 8/1/2011 08:30

Sample ID: 11H0030-09

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:03	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:03	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:03	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:03	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:03	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:03	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:03	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:03	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:03	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	95.4	30-150		8/3/11 1:03
Decachlorobiphenyl [2]	98.1	30-150		8/3/11 1:03
Tetrachloro-m-xylene [1]	99.5	30-150		8/3/11 1:03
Tetrachloro-m-xylene [2]	101	30-150		8/3/11 1:03

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0030

Date Received: 8/1/2011

Field Sample #: WH-VWS-111 Sampled: 8/1/2011 08:33

Sample ID: 11H0030-10

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:16	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:16	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:16	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:16	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:16	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:16	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:16	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:16	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/1/11	8/3/11 1:16	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	73.8	30-150		8/3/11 1:16
Decachlorobiphenyl [2]	76.0	30-150		8/3/11 1:16
Tetrachloro-m-xylene [1]	74.5	30-150		8/3/11 1:16
Tetrachloro-m-xylene [2]	76.5	30-150		8/3/11 1:16

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [Wipe]	Final [mL]	Date
11H0030-01 [WH-VWS-089]	B034670	1.00	10.0	08/01/11
11H0030-02 [WH-VWS-098]	B034670	1.00	10.0	08/01/11
11H0030-03 [WH-VWSD-099]	B034670	1.00	10.0	08/01/11
11H0030-04 [WH-VWS-100]	B034670	1.00	10.0	08/01/11
11H0030-05 [WH-VWS-101]	B034670	1.00	10.0	08/01/11
11H0030-06 [WH-VWS-102]	B034670	1.00	10.0	08/01/11
11H0030-07 [WH-VWS-103]	B034670	1.00	10.0	08/01/11
11H0030-08 [WH-VWS-104]	B034670	1.00	10.0	08/01/11
11H0030-09 [WH-VWS-110]	B034670	1.00	10.0	08/01/11
11H0030-10 [WH-VWS-111]	B034670	1.00	10.0	08/01/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B034670 - SW-846 3540C										
Blank (B034670-BLK1)				Prepared: 08/01/11 Analyzed: 08/02/11						
Aroclor-1016	ND	0.20	µg/Wipe							
Aroclor-1016 [2C]	ND	0.20	µg/Wipe							
Aroclor-1221	ND	0.20	µg/Wipe							
Aroclor-1221 [2C]	ND	0.20	µg/Wipe							
Aroclor-1232	ND	0.20	µg/Wipe							
Aroclor-1232 [2C]	ND	0.20	µg/Wipe							
Aroclor-1242	ND	0.20	µg/Wipe							
Aroclor-1242 [2C]	ND	0.20	µg/Wipe							
Aroclor-1248	ND	0.20	µg/Wipe							
Aroclor-1248 [2C]	ND	0.20	µg/Wipe							
Aroclor-1254	ND	0.20	µg/Wipe							
Aroclor-1254 [2C]	ND	0.20	µg/Wipe							
Aroclor-1260	ND	0.20	µg/Wipe							
Aroclor-1260 [2C]	ND	0.20	µg/Wipe							
Aroclor-1262	ND	0.20	µg/Wipe							
Aroclor-1262 [2C]	ND	0.20	µg/Wipe							
Aroclor-1268	ND	0.20	µg/Wipe							
Aroclor-1268 [2C]	ND	0.20	µg/Wipe							
Surrogate: Decachlorobiphenyl	*2.03*		µg/Wipe	2.00		102	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.07*		µg/Wipe	2.00		103	30-150			
Surrogate: Tetrachloro-m-xylene	*2.18*		µg/Wipe	2.00		109	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*2.16*		µg/Wipe	2.00		108	30-150			
LCS (B034670-BS1)				Prepared: 08/01/11 Analyzed: 08/02/11						
Aroclor-1016	0.51	0.20	µg/Wipe	0.500		102	40-140			
Aroclor-1016 [2C]	0.58	0.20	µg/Wipe	0.500		116	40-140			
Aroclor-1260	0.53	0.20	µg/Wipe	0.500		107	40-140			
Aroclor-1260 [2C]	0.57	0.20	µg/Wipe	0.500		115	40-140			
Surrogate: Decachlorobiphenyl	*1.86*		µg/Wipe	2.00		92.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.91*		µg/Wipe	2.00		95.5	30-150			
Surrogate: Tetrachloro-m-xylene	*2.00*		µg/Wipe	2.00		99.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.99*		µg/Wipe	2.00		99.3	30-150			
LCS Dup (B034670-BSD1)				Prepared: 08/01/11 Analyzed: 08/02/11						
Aroclor-1016	0.50	0.20	µg/Wipe	0.500		99.3	40-140	2.63	30	
Aroclor-1016 [2C]	0.60	0.20	µg/Wipe	0.500		120	40-140	3.34	30	
Aroclor-1260	0.53	0.20	µg/Wipe	0.500		105	40-140	1.19	30	
Aroclor-1260 [2C]	0.56	0.20	µg/Wipe	0.500		112	40-140	2.19	30	
Surrogate: Decachlorobiphenyl	*1.97*		µg/Wipe	2.00		98.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.02*		µg/Wipe	2.00		101	30-150			
Surrogate: Tetrachloro-m-xylene	*2.09*		µg/Wipe	2.00		105	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*2.08*		µg/Wipe	2.00		104	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications

No certified Analyses included in this Report

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028

11H0030

Company Name: WOODARD CURRAN
Telephone: 1(978)557-8150
Address: 35 N.E. BUSINESS CTR, SUITE 180
ANDOVER, MA
Project # 224189
Client PO#
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER AMHERST, MA
Sampled By: J. REAM

DATA DELIVERY (check all that apply)
○ FAX ✓ EMAIL ○ WEBSITE
Fax # gfranklin@woodardcurran.com
Email: jhamel
Format: ✓ PDF ✓ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

ANALYSIS REQUESTED

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCB's (Soxhlet)											
-1	WH-VWS-089	8/1/11	0800		✓	O	L	X											
-2	WH-VWS-098	↓	0803		✓	O	L	X											
-3	WH-VWSD-099		0803		✓	O	L	X											
-4	WH-VWS-100		0806		✓	O	L	X											
-5	WH-VWS-101		0809		✓	O	L	X											
-6	WH-VWS-102		0812		✓	O	L	X											
-7	WH-VWS-103		0815		✓	O	L	X											
-8	WH-VWS-104		0818		✓	O	L	X											
-9	WH-VWS-110		0830		✓	O	L	X											
-10	WH-VWS-111		0833		✓	O	L	X											

# of Containers	1																		
** Preservation	I																		
***Container Code	A																		

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V=vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Comments: PCB's by USEPA 8082 via 3540c (Soxhlet Extraction)
R.L. ≤1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 8/1/11 1400
Received by: (signature)	Date/Time: 8/1 1400
Relinquished by: (signature)	Date/Time: 8/1 1635
Received by: (signature) 3.5°C	Date/Time: 8/1/11 16:35

Turnaround ††
❑ 7-Day
❑ 10-Day
❑ Other ____
RUSH †
❑ †24-Hr ✓ †48-Hr
❑ †72-Hr ❑ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required PWSID # _____

ACCREDITED IN ACCORDANCE WITH nelac
AIHA
NELAC & AIHA Certified
WBE/DBE Certified

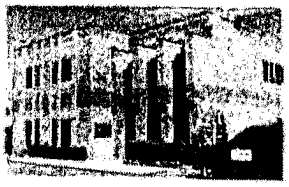
†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist



CLIENT NAME: Woodard + Curran RECEIVED BY: CB DATE: 8/1/11

1) Was the chain(s) of custody relinquished and signed? Yes No No CoC Included

2) Does the chain agree with the samples? Yes No

If not, explain:

3) Are all the samples in good condition? Yes No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank 3.5°C Temperature °C by Temp gun _____

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	10
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

Doc# 277

Rev. 1 May 2011

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11H0030
Project Location: UMASS - Webster Amherst, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11H0030-01 thru 11H0030-10

Matrices: Wipe

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes	☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes	☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes	☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes	☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes	☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☑ Yes	☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ Position: Laboratory Manager

Printed Name: Daren J. Damboragian Date: 08/03/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

August 10, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: UMASS - Webster Amherst, MA
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11H0134

Enclosed are results of analyses for samples received by the laboratory on August 3, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 8/10/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11H0134

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: UMASS - Webster Amherst, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VWS-105	11H0134-01	Wipe		SW-846 8082A	
WH-VWS-106	11H0134-02	Wipe		SW-846 8082A	
WH-VWS-107	11H0134-03	Wipe		SW-846 8082A	
WH-VWS-108	11H0134-04	Wipe		SW-846 8082A	
WH-VWS-109	11H0134-05	Wipe		SW-846 8082A	
WH-VWS-112	11H0134-06	Wipe		SW-846 8082A	
WH-VWS-113	11H0134-07	Wipe		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Michael A. Erickson
Laboratory Director

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0134

Date Received: 8/3/2011

Field Sample #: WH-VWS-105 Sampled: 8/3/2011 07:15

Sample ID: 11H0134-01

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:10	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:10	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:10	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:10	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:10	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:10	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:10	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:10	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:10	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	103	30-150		8/9/11 17:10
Decachlorobiphenyl [2]	110	30-150		8/9/11 17:10
Tetrachloro-m-xylene [1]	92.2	30-150		8/9/11 17:10
Tetrachloro-m-xylene [2]	106	30-150		8/9/11 17:10

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0134

Date Received: 8/3/2011

Field Sample #: WH-VWS-106 Sampled: 8/3/2011 07:20

Sample ID: 11H0134-02

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:24	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:24	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:24	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:24	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:24	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:24	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:24	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:24	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:24	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	100	30-150		8/9/11 17:24
Decachlorobiphenyl [2]	109	30-150		8/9/11 17:24
Tetrachloro-m-xylene [1]	93.0	30-150		8/9/11 17:24
Tetrachloro-m-xylene [2]	107	30-150		8/9/11 17:24

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0134

Date Received: 8/3/2011

Field Sample #: WH-VWS-107 Sampled: 8/3/2011 07:25

Sample ID: 11H0134-03

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:38	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:38	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:38	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:38	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:38	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:38	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:38	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:38	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:38	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	99.6	30-150		8/9/11 17:38
Decachlorobiphenyl [2]	108	30-150		8/9/11 17:38
Tetrachloro-m-xylene [1]	92.8	30-150		8/9/11 17:38
Tetrachloro-m-xylene [2]	109	30-150		8/9/11 17:38

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0134

Date Received: 8/3/2011

Field Sample #: WH-VWS-108 Sampled: 8/3/2011 07:30

Sample ID: 11H0134-04

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:52	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:52	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:52	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:52	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:52	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:52	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:52	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:52	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 17:52	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	103	30-150		8/9/11 17:52
Decachlorobiphenyl [2]	112	30-150		8/9/11 17:52
Tetrachloro-m-xylene [1]	90.6	30-150		8/9/11 17:52
Tetrachloro-m-xylene [2]	105	30-150		8/9/11 17:52

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0134

Date Received: 8/3/2011

Field Sample #: WH-VWS-109 Sampled: 8/3/2011 07:35

Sample ID: 11H0134-05

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:06	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:06	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:06	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:06	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:06	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:06	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:06	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:06	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:06	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	110	30-150		8/9/11 18:06
Decachlorobiphenyl [2]	118	30-150		8/9/11 18:06
Tetrachloro-m-xylene [1]	90.6	30-150		8/9/11 18:06
Tetrachloro-m-xylene [2]	106	30-150		8/9/11 18:06

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0134

Date Received: 8/3/2011

Field Sample #: WH-VWS-112 Sampled: 8/3/2011 07:40

Sample ID: 11H0134-06

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:21	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:21	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:21	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:21	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:21	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:21	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:21	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:21	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:21	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	94.3	30-150		8/9/11 18:21
Decachlorobiphenyl [2]	101	30-150		8/9/11 18:21
Tetrachloro-m-xylene [1]	82.2	30-150		8/9/11 18:21
Tetrachloro-m-xylene [2]	95.3	30-150		8/9/11 18:21

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0134

Date Received: 8/3/2011

Field Sample #: WH-VWS-113 Sampled: 8/3/2011 07:45

Sample ID: 11H0134-07

Sample Matrix: Wipe

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:35	JMB
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:35	JMB
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:35	JMB
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:35	JMB
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:35	JMB
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:35	JMB
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:35	JMB
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:35	JMB
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	8/4/11	8/9/11 18:35	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	97.5	30-150		8/9/11 18:35
Decachlorobiphenyl [2]	103	30-150		8/9/11 18:35
Tetrachloro-m-xylene [1]	85.2	30-150		8/9/11 18:35
Tetrachloro-m-xylene [2]	98.4	30-150		8/9/11 18:35

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [Wipe]	Final [mL]	Date
11H0134-01 [WH-VWS-105]	B034913	1.00	10.0	08/04/11
11H0134-02 [WH-VWS-106]	B034913	1.00	10.0	08/04/11
11H0134-03 [WH-VWS-107]	B034913	1.00	10.0	08/04/11
11H0134-04 [WH-VWS-108]	B034913	1.00	10.0	08/04/11
11H0134-05 [WH-VWS-109]	B034913	1.00	10.0	08/04/11
11H0134-06 [WH-VWS-112]	B034913	1.00	10.0	08/04/11
11H0134-07 [WH-VWS-113]	B034913	1.00	10.0	08/04/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B034913 - SW-846 3540C										
Blank (B034913-BLK1)				Prepared: 08/04/11 Analyzed: 08/09/11						
Aroclor-1016	ND	0.20	µg/Wipe							
Aroclor-1016 [2C]	ND	0.20	µg/Wipe							
Aroclor-1221	ND	0.20	µg/Wipe							
Aroclor-1221 [2C]	ND	0.20	µg/Wipe							
Aroclor-1232	ND	0.20	µg/Wipe							
Aroclor-1232 [2C]	ND	0.20	µg/Wipe							
Aroclor-1242	ND	0.20	µg/Wipe							
Aroclor-1242 [2C]	ND	0.20	µg/Wipe							
Aroclor-1248	ND	0.20	µg/Wipe							
Aroclor-1248 [2C]	ND	0.20	µg/Wipe							
Aroclor-1254	ND	0.20	µg/Wipe							
Aroclor-1254 [2C]	ND	0.20	µg/Wipe							
Aroclor-1260	ND	0.20	µg/Wipe							
Aroclor-1260 [2C]	ND	0.20	µg/Wipe							
Aroclor-1262	ND	0.20	µg/Wipe							
Aroclor-1262 [2C]	ND	0.20	µg/Wipe							
Aroclor-1268	ND	0.20	µg/Wipe							
Aroclor-1268 [2C]	ND	0.20	µg/Wipe							
Surrogate: Decachlorobiphenyl	*2.20*		µg/Wipe	2.00		110	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.34*		µg/Wipe	2.00		117	30-150			
Surrogate: Tetrachloro-m-xylene	*1.82*		µg/Wipe	2.00		90.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*2.11*		µg/Wipe	2.00		105	30-150			
LCS (B034913-BS1)				Prepared: 08/04/11 Analyzed: 08/09/11						
Aroclor-1016	0.53	0.20	µg/Wipe	0.500		106	40-140			
Aroclor-1016 [2C]	0.60	0.20	µg/Wipe	0.500		121	40-140			
Aroclor-1260	0.52	0.20	µg/Wipe	0.500		104	40-140			
Aroclor-1260 [2C]	0.57	0.20	µg/Wipe	0.500		114	40-140			
Surrogate: Decachlorobiphenyl	*2.10*		µg/Wipe	2.00		105	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.25*		µg/Wipe	2.00		113	30-150			
Surrogate: Tetrachloro-m-xylene	*1.79*		µg/Wipe	2.00		89.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*2.10*		µg/Wipe	2.00		105	30-150			
LCS Dup (B034913-BSD1)				Prepared: 08/04/11 Analyzed: 08/09/11						
Aroclor-1016	0.53	0.20	µg/Wipe	0.500		105	40-140	1.08	30	
Aroclor-1016 [2C]	0.60	0.20	µg/Wipe	0.500		119	40-140	1.25	30	
Aroclor-1260	0.53	0.20	µg/Wipe	0.500		105	40-140	1.02	30	
Aroclor-1260 [2C]	0.59	0.20	µg/Wipe	0.500		118	40-140	4.10	30	
Surrogate: Decachlorobiphenyl	*2.05*		µg/Wipe	2.00		102	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.24*		µg/Wipe	2.00		112	30-150			
Surrogate: Tetrachloro-m-xylene	*1.72*		µg/Wipe	2.00		86.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*2.09*		µg/Wipe	2.00		104	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications

No certified Analyses included in this Report

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

11H0134

Company Name: WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR, SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER AMHERST, MA
Sampled By: J. REAM

Telephone: 1(978)557-8150
Project # 224189
Client PO#

DATA DELIVERY (check all that apply)
O FAX ✓ EMAIL O WEBSITE
Fax # gfranklin@woodardcurran.com
Email: jhamel
Format: ✓ PDF ✓ EXCEL O GIS
O OTHER
O "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
O yes _____ proposal date

ANALYSIS REQUESTED

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCB's (Soxhlet Extraction)											
								I											
								A											
-1	WH-VWS-105	8/3/11	0715		✓	O	L	X											
-2	WH-VWS-106		0720		✓	O	L	X											
-3	WH-VWS-107		0725		✓	O	L	X											
-4	WH-VWS-108		0730		✓	O	L	X											
-5	WH-VWS-109		0735		✓	O	L	X											
-6	WH-VWS-112		0740		✓	O	L	X											
-7	WH-VWS-113		0745		✓	O	L	X											

Comments: PCB's by USEPA 8082 via 3540C (Soxhlet)
R.L. ≤1.0 mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:
[signature]	8/3/11 1605
Received by: (signature) 3.3°C	Date/Time: 8/3/11 1605
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other 5-DAY NO CHARGE
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
O MCP Analytical Certification Form Required
O RCP Analysis Certification Form Required
O MA State DW Form Required PWSID # _____

ACCREDITED IN ACCORDANCE WITH nelac
ACCREDITED LABORATORY AIHA Environmental & Food & Industrial Hygiene
NELAC & AIHA Certified
WBE/DBE Certified

Dissolved Metals
O Field Filtered
O Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodward + Curran **RECEIVED BY:** [illegible] **DATE:** 8/3/11

1) Was the chain(s) of custody relinquished and signed? ~~Yes~~ **No** **No CoC Included**

2) Does the chain agree with the samples? **Yes** **No**

If not, explain:

3) Are all the samples in good condition? **Yes** **No**

If not, explain:

4) How were the samples received:

On Ice ☒ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☒

Were the samples received in Temperature Compliance of (2-6°C)? **Yes** **No** **N/A**

Temperature °C by Temp blank _____ Temperature °C by Temp gun 3.8°C

5) Are there Dissolved samples for the lab to filter? **Yes** **No**

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? **Yes** **No**

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	7
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____
Bisulfate _____ # DI Water _____
Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

Doc# 277

Rev. 1 May [illegible]

11H0134-01 WH-VWS-105

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	1.84	2.11619	14
Decachlorobiphenyl	2.06	2.19406	6.3

11H0134-02 WH-VWS-106

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	2.01	2.17814	8.03
Tetrachloro-m-xylene	1.86	2.14541	14.3

11H0134-03 WH-VWS-107

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	1.99	2.15816	8.11
Tetrachloro-m-xylene	1.86	2.17052	15.4

11H0134-04 WH-VWS-108

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	2.05	2.23796	8.77
Tetrachloro-m-xylene	1.81	2.09659	14.7

11H0134-05 WH-VWS-109

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	2.20	2.36713	7.32
Tetrachloro-m-xylene	1.81	2.1105	15.3

11H0134-06 WH-VWS-112

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	1.64	1.90599	15
Decachlorobiphenyl	1.89	2.01776	6.54

11H0134-07 WH-VWS-113

Analyte	Results		%RPD
Surrogates			
Tetrachloro-m-xylene	1.70	1.96797	14.6
Decachlorobiphenyl	1.95	2.06839	5.89

B034913-BLK1 Blank

Analyte	Results		%RPD
Surrogates			
Decachlorobiphenyl	2.20	2.34159	6.24
Tetrachloro-m-xylene	1.82	2.10897	14.7

B034913-BS1 LCS

Analyte	Results		%RPD
Aroclor-1016	0.53	0.60463	13.2
Aroclor-1260	0.52	0.5682	8.86
Surrogates			
Decachlorobiphenyl	2.10	2.25154	6.96
Tetrachloro-m-xylene	1.79	2.0993	15.9

B034913-BSD1 LCS Dup

Analyte	Results		%RPD
Aroclor-1016	0.53	0.59709	11.9
Aroclor-1260	0.53	0.59198	11
Surrogates			
Tetrachloro-m-xylene	1.72	2.08502	19.2

Decachlorobiphenyl	2.05	2.24245	8.97

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11H0134
Project Location: UMASS - Webster Amherst, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11H0134-01 thru 11H0134-07

Matrices: Wipe

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes ☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes ☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes ☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes ☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes ☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes ☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☑ Yes ☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: M Erickson Position: Laboratory Director

Printed Name: Michael A. Erickson Date: 08/10/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

August 16, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: UMASS - Webster Amherst, MA
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11H0351

Enclosed are results of analyses for samples received by the laboratory on August 9, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 8/16/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11H0351

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: UMASS - Webster Amherst, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VBC-114	11H0351-01	Concrete		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Daren J. Damboragian
Laboratory Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMASS - Webster Amherst, MA Sample Description: Work Order: 11H0351

Date Received: 8/9/2011

Field Sample #: WH-VBC-114 Sampled: 8/9/2011 07:15

Sample ID: 11H0351-01

Sample Matrix: Concrete

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	8/9/11	8/11/11 12:37	JMB
Aroclor-1221 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	8/9/11	8/11/11 12:37	JMB
Aroclor-1232 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	8/9/11	8/11/11 12:37	JMB
Aroclor-1242 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	8/9/11	8/11/11 12:37	JMB
Aroclor-1248 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	8/9/11	8/11/11 12:37	JMB
Aroclor-1254 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	8/9/11	8/11/11 12:37	JMB
Aroclor-1260 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	8/9/11	8/11/11 12:37	JMB
Aroclor-1262 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	8/9/11	8/11/11 12:37	JMB
Aroclor-1268 [1]	ND	0.10	mg/Kg	1		SW-846 8082A	8/9/11	8/11/11 12:37	JMB

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	91.8	30-150		8/11/11 12:37
Decachlorobiphenyl [2]	98.4	30-150		8/11/11 12:37
Tetrachloro-m-xylene [1]	80.1	30-150		8/11/11 12:37
Tetrachloro-m-xylene [2]	82.8	30-150		8/11/11 12:37

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
11H0351-01 [WH-VBC-114]	B035170	2.00	10.0	08/09/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B035170 - SW-846 3540C										
Blank (B035170-BLK1)				Prepared: 08/09/11 Analyzed: 08/11/11						
Aroclor-1016	ND	0.10	mg/Kg							
Aroclor-1016 [2C]	ND	0.10	mg/Kg							
Aroclor-1221	ND	0.10	mg/Kg							
Aroclor-1221 [2C]	ND	0.10	mg/Kg							
Aroclor-1232	ND	0.10	mg/Kg							
Aroclor-1232 [2C]	ND	0.10	mg/Kg							
Aroclor-1242	ND	0.10	mg/Kg							
Aroclor-1242 [2C]	ND	0.10	mg/Kg							
Aroclor-1248	ND	0.10	mg/Kg							
Aroclor-1248 [2C]	ND	0.10	mg/Kg							
Aroclor-1254	ND	0.10	mg/Kg							
Aroclor-1254 [2C]	ND	0.10	mg/Kg							
Aroclor-1260	ND	0.10	mg/Kg							
Aroclor-1260 [2C]	ND	0.10	mg/Kg							
Aroclor-1262	ND	0.10	mg/Kg							
Aroclor-1262 [2C]	ND	0.10	mg/Kg							
Aroclor-1268	ND	0.10	mg/Kg							
Aroclor-1268 [2C]	ND	0.10	mg/Kg							
Surrogate: Decachlorobiphenyl	*0.906*		mg/Kg	1.00		90.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.976*		mg/Kg	1.00		97.6	30-150			
Surrogate: Tetrachloro-m-xylene	*0.889*		mg/Kg	1.00		88.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.994*		mg/Kg	1.00		99.4	30-150			
LCS (B035170-BS1)				Prepared: 08/09/11 Analyzed: 08/11/11						
Aroclor-1016	0.26	0.10	mg/Kg	0.250		105	40-140			
Aroclor-1016 [2C]	0.27	0.10	mg/Kg	0.250		107	40-140			
Aroclor-1260	0.25	0.10	mg/Kg	0.250		101	40-140			
Aroclor-1260 [2C]	0.28	0.10	mg/Kg	0.250		110	40-140			
Surrogate: Decachlorobiphenyl	*2.03*		mg/Kg	2.00		102	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.19*		mg/Kg	2.00		110	30-150			
Surrogate: Tetrachloro-m-xylene	*1.85*		mg/Kg	2.00		92.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*2.06*		mg/Kg	2.00		103	30-150			
LCS Dup (B035170-BSD1)				Prepared: 08/09/11 Analyzed: 08/11/11						
Aroclor-1016	0.24	0.10	mg/Kg	0.250		97.4	40-140	7.81	30	
Aroclor-1016 [2C]	0.29	0.10	mg/Kg	0.250		117	40-140	8.65	30	
Aroclor-1260	0.23	0.10	mg/Kg	0.250		92.4	40-140	9.07	30	
Aroclor-1260 [2C]	0.25	0.10	mg/Kg	0.250		101	40-140	9.00	30	
Surrogate: Decachlorobiphenyl	*0.824*		mg/Kg	1.00		82.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.888*		mg/Kg	1.00		88.8	30-150			
Surrogate: Tetrachloro-m-xylene	*0.961*		mg/Kg	1.00		96.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.11*		mg/Kg	1.00		111	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Product/Solid	
Aroclor-1016	CT,NH,NY,ME,NC
Aroclor-1016 [2C]	CT,NH,NY,ME,NC
Aroclor-1221	CT,NH,NY,ME,NC
Aroclor-1221 [2C]	CT,NH,NY,ME,NC
Aroclor-1232	CT,NH,NY,ME,NC
Aroclor-1232 [2C]	CT,NH,NY,ME,NC
Aroclor-1242	CT,NH,NY,ME,NC
Aroclor-1242 [2C]	CT,NH,NY,ME,NC
Aroclor-1248	CT,NH,NY,ME,NC
Aroclor-1248 [2C]	CT,NH,NY,ME,NC
Aroclor-1254	CT,NH,NY,ME,NC
Aroclor-1254 [2C]	CT,NH,NY,ME,NC
Aroclor-1260	CT,NH,NY,ME,NC
Aroclor-1260 [2C]	CT,NH,NY,ME,NC

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028

11H0351

Company Name: ~~35 N.E.~~ JR WOODARD + CURRAN
Address: 35 N.E. BUSINESS CTR, SUITE 180
ANDOVER, MA
Attention: GEORGE FRANKLIN
Project Location: UMASS-WEBSTER AMHERST, MA
Sampled By: J. REAM

Telephone: 1(978)557-8150
Project # 224189
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ☑ EMAIL ○ WEBSITE
Fax # gfranklin
Email: jhamel@woodardcurran.com
Format: ☑ PDF ☑ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCB's (Soxhlet Extraction)										
-1	WH-VBC-114	8/9/11	0715		✓	S	L	X										

ANALYSIS REQUESTED

# of Containers	1																	
** Preservation	I																	
***Container Code	A																	

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Comments: PCB's by USEPA 8082 via 3540c (Soxhlet Extraction)
R.L. ≤1.0mg/kg

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:
[signature]	8/9/11
Received by: (signature) [signature]	8/9/11 14:05
Relinquished by: (signature) [signature]	8/9/11 16:15
Received by: (signature) [signature] 4-7°C	8/9/11 16:15

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other ____
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required PWSID # ____

NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard + Curran **RECEIVED BY:** 93 **DATE:** 8/9/11

1) Was the chain(s) of custody relinquished and signed? Yes No **No CoC Included**

2) Does the chain agree with the samples? Yes No

If not, explain:

3) Are all the samples in good condition? Yes No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 4.7°C

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)	1	2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

Doc# 277

Rev. 1 May 2011

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 11H0351
Project Location: UMASS - Webster Amherst, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

11H0351-01

Matrices: Product/Solid

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes ☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes ☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes ☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes ☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes ☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes ☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☑ Yes ☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes ☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ Position: Laboratory Manager

Printed Name: Daren J. Damboragian Date: 08/16/11

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

November 11, 2011

George Franklin
Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810

Project Location: UMass Webster House
Client Job Number:
Project Number: 224189
Laboratory Work Order Number: 11K0229

Enclosed are results of analyses for samples received by the laboratory on November 8, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Woodard & Curran - Andover, MA
35 New England Business Center
Andover, MA 01810
ATTN: George Franklin

REPORT DATE: 11/11/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 224189

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11K0229

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: UMass Webster House

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WH-VWC-115	11K0229-01	Wipe		SW-846 8082A	
WH-VWC-116	11K0229-02	Wipe		SW-846 8082A	
WH-VWC-117	11K0229-03	Wipe		SW-846 8082A	
WH-VWC-118	11K0229-04	Wipe		SW-846 8082A	
WH-VWC-119	11K0229-05	Wipe		SW-846 8082A	
WH-VWC-120	11K0229-06	Wipe		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Daren J. Damboragian
Laboratory Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster House | Sample Description: | Work Order: 11K0229

Date Received: 11/8/2011

Field Sample #: WH-VWC-115 | Sampled: 11/7/2011 12:50

Sample ID: 11K0229-01

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 14:54	MJC
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 14:54	MJC
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 14:54	MJC
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 14:54	MJC
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 14:54	MJC
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 14:54	MJC
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 14:54	MJC
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 14:54	MJC
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 14:54	MJC

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	131	30-150		11/10/11 14:54
Decachlorobiphenyl [2]	112	30-150		11/10/11 14:54
Tetrachloro-m-xylene [1]	92.3	30-150		11/10/11 14:54
Tetrachloro-m-xylene [2]	99.5	30-150		11/10/11 14:54

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster House | Sample Description: | Work Order: 11K0229

Date Received: 11/8/2011

Field Sample #: WH-VWC-116 | Sampled: 11/7/2011 12:53

Sample ID: 11K0229-02

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:07	MJC
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:07	MJC
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:07	MJC
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:07	MJC
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:07	MJC
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:07	MJC
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:07	MJC
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:07	MJC
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:07	MJC

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	106	30-150		11/10/11 15:07
Decachlorobiphenyl [2]	90.9	30-150		11/10/11 15:07
Tetrachloro-m-xylene [1]	95.4	30-150		11/10/11 15:07
Tetrachloro-m-xylene [2]	102	30-150		11/10/11 15:07

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster House | Sample Description: | Work Order: 11K0229

Date Received: 11/8/2011

Field Sample #: WH-VWC-117 | Sampled: 11/7/2011 12:58

Sample ID: 11K0229-03

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:20	MJC
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:20	MJC
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:20	MJC
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:20	MJC
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:20	MJC
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:20	MJC
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:20	MJC
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:20	MJC
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:20	MJC

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	136	30-150		11/10/11 15:20
Decachlorobiphenyl [2]	117	30-150		11/10/11 15:20
Tetrachloro-m-xylene [1]	92.7	30-150		11/10/11 15:20
Tetrachloro-m-xylene [2]	101	30-150		11/10/11 15:20

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster House | Sample Description: | Work Order: 11K0229

Date Received: 11/8/2011

Field Sample #: WH-VWC-118 | Sampled: 11/7/2011 13:03

Sample ID: 11K0229-04

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:33	MJC
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:33	MJC
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:33	MJC
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:33	MJC
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:33	MJC
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:33	MJC
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:33	MJC
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:33	MJC
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:33	MJC

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	132	30-150		11/10/11 15:33
Decachlorobiphenyl [2]	115	30-150		11/10/11 15:33
Tetrachloro-m-xylene [1]	92.3	30-150		11/10/11 15:33
Tetrachloro-m-xylene [2]	98.9	30-150		11/10/11 15:33

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster House | Sample Description: | Work Order: 11K0229

Date Received: 11/8/2011

Field Sample #: WH-VWC-119 | Sampled: 11/7/2011 13:06

Sample ID: 11K0229-05

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:46	MJC
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:46	MJC
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:46	MJC
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:46	MJC
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:46	MJC
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:46	MJC
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:46	MJC
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:46	MJC
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:46	MJC

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	135	30-150		11/10/11 15:46
Decachlorobiphenyl [2]	117	30-150		11/10/11 15:46
Tetrachloro-m-xylene [1]	92.7	30-150		11/10/11 15:46
Tetrachloro-m-xylene [2]	99.4	30-150		11/10/11 15:46

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: UMass Webster House | Sample Description: | Work Order: 11K0229

Date Received: 11/8/2011

Field Sample #: WH-VWC-120 | Sampled: 11/7/2011 13:10

Sample ID: 11K0229-06

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:59	MJC
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:59	MJC
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:59	MJC
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:59	MJC
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:59	MJC
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:59	MJC
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:59	MJC
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:59	MJC
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	11/8/11	11/10/11 15:59	MJC

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	108	30-150		11/10/11 15:59
Decachlorobiphenyl [2]	93.4	30-150		11/10/11 15:59
Tetrachloro-m-xylene [1]	96.0	30-150		11/10/11 15:59
Tetrachloro-m-xylene [2]	104	30-150		11/10/11 15:59

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [Wipe]	Final [mL]	Date
11K0229-01 [WH-VWC-115]	B040638	1.00	10.0	11/08/11
11K0229-02 [WH-VWC-116]	B040638	1.00	10.0	11/08/11
11K0229-03 [WH-VWC-117]	B040638	1.00	10.0	11/08/11
11K0229-04 [WH-VWC-118]	B040638	1.00	10.0	11/08/11
11K0229-05 [WH-VWC-119]	B040638	1.00	10.0	11/08/11
11K0229-06 [WH-VWC-120]	B040638	1.00	10.0	11/08/11

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B040638 - SW-846 3540C										
Blank (B040638-BLK1)				Prepared: 11/08/11 Analyzed: 11/10/11						
Aroclor-1016	ND	0.20	µg/Wipe							
Aroclor-1016 [2C]	ND	0.20	µg/Wipe							
Aroclor-1221	ND	0.20	µg/Wipe							
Aroclor-1221 [2C]	ND	0.20	µg/Wipe							
Aroclor-1232	ND	0.20	µg/Wipe							
Aroclor-1232 [2C]	ND	0.20	µg/Wipe							
Aroclor-1242	ND	0.20	µg/Wipe							
Aroclor-1242 [2C]	ND	0.20	µg/Wipe							
Aroclor-1248	ND	0.20	µg/Wipe							
Aroclor-1248 [2C]	ND	0.20	µg/Wipe							
Aroclor-1254	ND	0.20	µg/Wipe							
Aroclor-1254 [2C]	ND	0.20	µg/Wipe							
Aroclor-1260	ND	0.20	µg/Wipe							
Aroclor-1260 [2C]	ND	0.20	µg/Wipe							
Aroclor-1262	ND	0.20	µg/Wipe							
Aroclor-1262 [2C]	ND	0.20	µg/Wipe							
Aroclor-1268	ND	0.20	µg/Wipe							
Aroclor-1268 [2C]	ND	0.20	µg/Wipe							
Surrogate: Decachlorobiphenyl	*2.56*		µg/Wipe	2.00		128	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.02*		µg/Wipe	2.00		101	30-150			
Surrogate: Tetrachloro-m-xylene	*1.79*		µg/Wipe	2.00		89.7	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.93*		µg/Wipe	2.00		96.4	30-150			
LCS (B040638-BS1)				Prepared: 11/08/11 Analyzed: 11/10/11						
Aroclor-1016	0.49	0.20	µg/Wipe	0.500		98.5	40-140			
Aroclor-1016 [2C]	0.46	0.20	µg/Wipe	0.500		92.6	40-140			
Aroclor-1260	0.53	0.20	µg/Wipe	0.500		105	40-140			
Aroclor-1260 [2C]	0.54	0.20	µg/Wipe	0.500		108	40-140			
Surrogate: Decachlorobiphenyl	*2.74*		µg/Wipe	2.00		137	30-150			
Surrogate: Decachlorobiphenyl [2C]	*2.16*		µg/Wipe	2.00		108	30-150			
Surrogate: Tetrachloro-m-xylene	*1.89*		µg/Wipe	2.00		94.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.88*		µg/Wipe	2.00		94.1	30-150			
LCS Dup (B040638-BSD1)				Prepared: 11/08/11 Analyzed: 11/10/11						
Aroclor-1016	0.47	0.20	µg/Wipe	0.500		93.3	40-140	5.42	30	
Aroclor-1016 [2C]	0.41	0.20	µg/Wipe	0.500		81.9	40-140	12.4	30	
Aroclor-1260	0.44	0.20	µg/Wipe	0.500		87.8	40-140	18.2	30	
Aroclor-1260 [2C]	0.46	0.20	µg/Wipe	0.500		92.6	40-140	14.9	30	
Surrogate: Decachlorobiphenyl	*1.98*		µg/Wipe	2.00		99.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.58*		µg/Wipe	2.00		79.1	30-150			
Surrogate: Tetrachloro-m-xylene	*1.85*		µg/Wipe	2.00		92.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.89*		µg/Wipe	2.00		94.6	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications

No certified Analyses included in this Report

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2013
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

11K0229

Company Name: WOODARD & CURRAN
Address: 35 N.E. BUSINESS CTR
ANDOVER MA 01810
Attention: GEORGE FRANKLIN
Project Location: UMASS WEBSTER HOUSE
Sampled By: GEORGE FRANKLIN

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Telephone: 978 557 8150
Project # 224189
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ☑ EMAIL ○ WEBSITE
Fax #
Email: gfranklin
Format: ☑ PDF ☑ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

ANALYSIS REQUESTED

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	PCBs (8082)										
-01	WH-VWC-115	11/7/11	1250		X	O	U	X										
-02	WH-VWC-116	11/7/11	1253		X	O	U	X										
-03	WH-VWC-117	11/7/11	1258		X	O	U	X										
-04	WH-VWC-118	11/7/11	1303		X	O	U	X										
-05	WH-VWC-119	11/7/11	1306		X	O	U	X										
-06	WH-VWC-120	11/7/11	1310		X	O	U	X										

# of Containers: 1
** Preservation: O
***Container Code: G

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other Hexane

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other WIPE

Comments: PCBs VIA USEPA 8082 w/ SOXHLET EXTRACTION (3540C)

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:
[signature]	11/8/11 1248
Received by: (signature) [signature]	Date/Time: 11/8/11 1248
Relinquished by: (signature) [signature]	Date/Time: 11-8-11 1830
Received by: (signature) C. Clough-Segall 3.3°C	Date/Time: 11/8/11 18:30

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other 5 DAY
RUSH †
☐ †24-Hr ☐ †48-Hr
☑ 72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required PWSID # _____

ACCREDITED IN ACCORDANCE WITH nelac
ACCREDITED LABORATORY AIHA Environmental Lead & Industrial Hygiene See whatsapp for details

NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: Woodard and Curran **RECEIVED BY:** C.C.S. **DATE:** 11/8/11

1) Was the chain(s) of custody relinquished and signed? (Yes) No **No CoC Included**

2) Does the chain agree with the samples? (Yes) No

If not, explain:

3) Are all the samples in good condition? (Yes) No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? (Yes) No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 3.3 °C

5) Are there Dissolved samples for the lab to filter? Yes (No)

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? (Yes) No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/(clear) jar	6
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____
Bisulfate _____ # DI Water _____
Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

Doc# 277

Rev. 1 May 2

WEBSTER HOUSE - PROJECT SUMMARY

ConTest Analytical Laboratory Job Numbers: 11F0593, 11F0697, 11F0743, 11F0790, 11F0837, 11G0549, 11G0635, 11G0682, 11G0735, 11G0782, 11G0888, 11G0891, 11H0030, 11H0134, & 11H0351

A modified Tier II validation was performed on the data. The criteria detailed below were used to qualify the data. Raw data were not used to verify the results reported by the laboratory.

Samples were received at 2.5, 2.9, 3.0, 3.3, 3.5, 3.8, 4.3, 4.7, 5.0, and 23.3 degrees Celsius. Since the wipe samples in sample delivery group (SDG) 11G0891 (received at 23.3 degrees Celsius) arrived at the laboratory direct from sampling, no qualifications will be applied.

PCBs:

All polychlorinated biphenyl compound (PCB) samples were extracted and analyzed within technical holding times. No qualifications will be applied.

All PCB surrogates met acceptance criteria or were diluted out with the following exceptions. Tetrachloro-m-xylene (TCMX) was recovered at 3.36% and 3.11% in sample WH-VWSD-059 (11G0682-07). Since the TCMX recoveries were below recovery acceptance limits (30%-150%) and less than 10%, all non-detected PCB results in sample WH-VWSD-059 (11G0682-07) will be rejected (R).

The PCB method blanks were non-detect (ND) for all target analytes. No qualifications will be applied.

The PCB field blank samples WH-VBSQ-020 (11F0743-04), WH-VBCQ-040 (11F0837-11), WH-VWSQ-060 (11G0682-08), and WH-VBSQ-087 (11G0888-14) were ND for all target analytes. No qualifications will be applied.

The PCB matrix spike/matrix spike duplicate (MS/MSD) performed on samples WH-VBS-010 (11F0697-06), WH-VBS-018 (11F0743-02), WH-VBC-024 (11F0790-01), WH-VBS-053 (11G0682-01), WH-VBC-061 (11G0735-01), and WH-VBC-078 (11G0888-05) met acceptance criteria (40-140%) with the following exceptions:

LAB ID	SAMPLE ID	PCB-1016 (%) MS/MS/MSD/MSD	PCB-1260 (%) MS/MS/MSD/MSD	QUALIFIER
11F0790-01	WH-VBC-024	681/491/1150/810*	388/253/663/423*	None, PCB-1254 interference, PCB-1016 & PCB-1260 ND
11G0682-01	WH-VBS-053	161/614/172/409	479/363/369/279	None, PCB-1254 interference, PCB-1016 & PCB-1260 ND
11G0735-01	WH-VBC-061	259/220/245/190	373/432/449/492	None, PCB-1254 interference, PCB-1016 & PCB-1260 ND
11G0888-05	WH-VBC-078	182/223/171/215	OK/OK/OK/OK	None, PCB-1254 interference, PCB-1016 ND

* The MS/MSD RPDs also failed criteria.

The PCB laboratory control samples (LCS) and/or laboratory control sample duplicates (LCSD) met acceptance criteria. No qualifications will be applied.

WEBSTER HOUSE - PROJECT SUMMARY

ConTest Analytical Laboratory Job Numbers: 11F0593, 11F0697, 11F0743, 11F0790, 11F0837, 11G0549, 11G0635, 11G0682, 11G0735, 11G0782, 11G0888, 11G0891, 11H0030, 11H0134, & 11H0351

PCB field duplicate samples WH-VBS-018 (11F0743-02)/WH-VBSD-019 (11F0743-03), WH-VBC-038 (11F0837-09)/WH-VBCD-039 (11F0837-10), WH-VWS-058 (11G0682-06)/WH-VWSD-059 (11G0682-07), WH-VBC-078 (11G0888-05)/WH-VBCD-079 (11G0888-06), and WH-VWS-098 (11H0030-02)/WH-VWSD-099 (11H0030-03) met acceptance criteria with the following exceptions. The results for field duplicate sample WH-VWSD-059 (11G0682-07) were not useable due to extremely low surrogate recoveries. The relative percent difference (RPD) for PCB-1254 (79%) in field duplicate pair WH-VBC-078 (11G0888-05)/WH-VBCD-079 (11G0888-06) was above acceptance limits (≤50%). The detected PCB-1254 results in samples WH-VBC-078 (11G0888-05) and WH-VBCD-079 (11G0888-06) will be estimated (J) due to high field duplicate RPD.

The RPD between the column results for all detected PCBs met acceptance criteria (≤25%) with the following exceptions:

LAB ID	SAMPLE ID	PCB	RPD	QUALIFIER
11F0697-01	WH-VBS-005	1254	28.4	J
11F0697-04	WH-VBS-008	1254	34.9	J
11F0790-04	WH-VBC-027	1254	25.9	J
11F0790-06	WH-VBC-029	1254	32.5	J
11G0888-06	WH-VBCD-079	1254	29.4	J

Many samples were analyzed at dilutions due to the high concentration of PCBs present in the samples and/or due to sample matrix. Elevated quantitation limits are reported in these samples as a result of the dilutions performed.

Data Check, Inc.
P.O. Box 29
81 Meaderboro Road
New Durham, NH 03855

Gloria J. Switalski: Date: 9/9/2011
President

UMASS WEBSTER HOUSE - PROJECT SUMMARY

ConTest Analytical Laboratory Job Number: 11K0229

A modified Tier II validation was performed on the data. The criteria detailed below were used to qualify the data. Raw data were not used to verify the results reported by the laboratory.

Samples were received at 3.3 degrees Celsius. No qualifications will be applied.

PCBs:

All polychlorinated biphenyl compound (PCB) samples were extracted and analyzed within technical holding times. No qualifications will be applied.

All PCB surrogates met acceptance criteria. No qualifications will be applied.

The PCB method blanks were non-detect (ND) for all target analytes. No qualifications will be applied.

No PCB field blank sample was submitted with this analytical package. No qualifications will be applied.

No PCB matrix spike/matrix spike duplicate (MS/MSD) was performed on a sample from this analytical package. No qualifications will be applied.

The PCB laboratory control samples/laboratory control sample duplicates (LCS/LCSD) met acceptance criteria. No qualifications will be applied.

No PCB field duplicate samples were submitted with this analytical package. No qualifications will be applied.

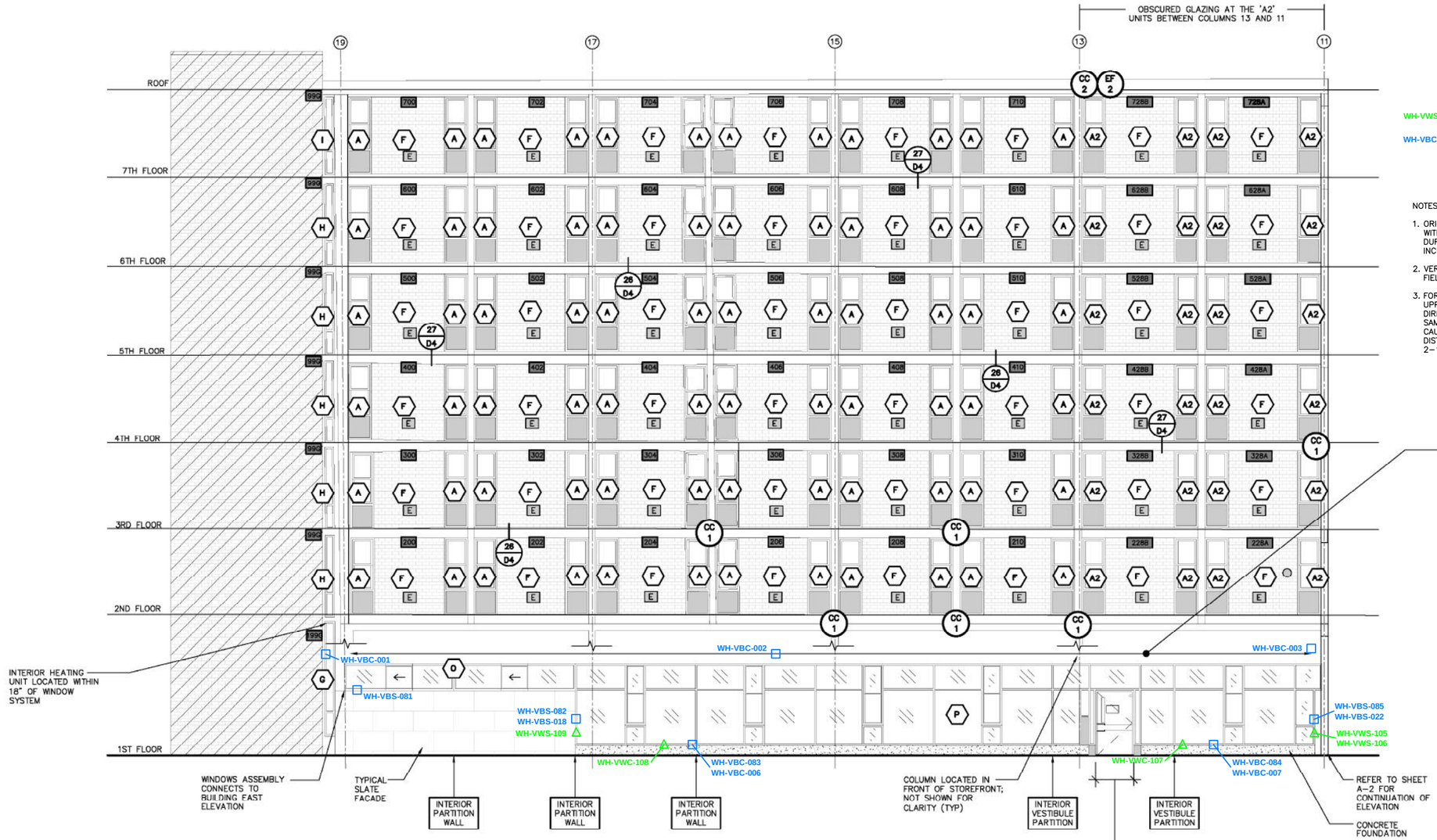
Data Check, Inc.
P.O. Box 29
81 Meaderboro Road
New Durham, NH 03855

Gloria J. Switalski:
President

Date: 11/14/2011

Project # 224189

APPENDIX D: VERIFICATION SAMPLE LOCATIONS



1 PARTIAL NORTHEAST ELEVATION

SCALE: 3/16"=1'-0"

0 4' 8' 12'

LEGEND

WH-VWS-109 △ VERIFICATION WIPE SAMPLE LOCATION AND IDENTIFIER

WH-VBC-001 □ VERIFICATION BULK SAMPLE LOCATION AND IDENTIFIER

NOTES:

1. ORIGINAL DESIGN DRAWING BY GALE ASSOCIATES, INC. MODIFIED WITH THE ADDITION OF VERIFICATION SAMPLES COLLECTED DURING PCB REMEDIATION ACTIVITIES. ALL OTHER INFORMATION INCLUDED AS PRESENTED IN THE ORIGINAL DESIGN DOCUMENTS.
2. VERIFICATION SAMPLE LOCATIONS APPROXIMATED BASED ON FIELD MEASUREMENTS.
3. FOR SAMPLE LOCATIONS WITH MULTIPLE SAMPLES SHOWN, THE UPPER SAMPLE WAS COLLECTED FROM MATERIALS FORMERLY IN DIRECT CONTACT WITH THE CAULKED JOINT AND THE LOWER SAMPLE WAS COLLECTED FROM MATERIALS ADJACENT TO THE CAULKED JOINT. LOCATIONS OF SAMPLES WITH RESPECT TO DISTANCE FROM CAULKED JOINTS ARE PRESENTED ON TABLE 2-1.

GENERAL NOTES

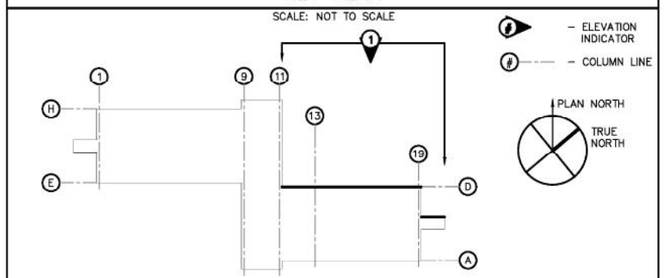
1. THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN COMPILED FROM VARIOUS SOURCES AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD.
2. HATCH PATTERNS ARE FOR REPRESENTATION ONLY AND SHALL NOT BE USED AS A FORM FOR MEASUREMENT.
3. FOR THE SAKE OF CLARITY, EACH INDIVIDUAL DETAIL HAS NOT BEEN INDICATED ON THIS DRAWING. INSTALLATION DETAILS HAVE BEEN INDICATED FOR TYPICAL COMPONENTS AT RANDOM LOCATIONS.
4. ANY CONDITION NOT DETAILED SHALL BE CONSTRUCTED IN A MANNER SIMILAR TO THAT OF THE TYPICAL DETAILS.
5. THE WINDOW SIZES VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL WINDOW SIZES IN THE FIELD.
6. ALL WINDOW FRAMES, VERTICAL MULLIONS, CLIPS AND SECUREMENTS SHALL BE DESIGNED TO WITHSTAND A 43 PSF WIND LOAD.
7. REFER TO THE WINDOW AND STOREFRONT SCHEDULE FOR ADDITIONAL INFORMATION.
8. IN GENERAL: REMOVE AND REPLACE EXISTING EXTERIOR WINDOWS, DOORS AND ENTRANCES. REFER TO SPECIFICATIONS FOR DETAILED SCOPE OF WORK.

LEGEND

- WINDOW/ PANEL INDICATOR
- DETAIL NUMBER
- DETAIL SHEET LOCATION
- NOT IN CONTRACT OR NOT REFERENCED ON THIS SHEET
- CRACKED PRECAST CONCRETE TO BE REPAIRED # INDICATES LINEAR FEET
- SPALLED CONCRETE TO BE REPAIRED # INDICATES SQUARE FEET
- EFFLORESCENCE # INDICATES SQUARE FEET
- LIGHT WITH CONDUIT MOUNTED TO WALL
- LIGHT SENSOR THROUGH MASONRY PANEL AND BACKUP WALL
- APPROXIMATE LOCATION OF ELECTRICAL BOX AND CONDUIT WITHIN BACK-UP WALL SYSTEM
- INTERIOR ROOM DESIGNATION NUMBER
- BRICK MASONRY PANEL
- PROVIDE 1" INSULATED PANEL AT DESIGNATED LOCATIONS
- SLATE FACADE

KEY PLAN

SCALE: NOT TO SCALE



Gale Associates, Inc.
Engineers Planners
163 Libbey Parkway | Weymouth, MA 02189-0004
P 781.335.6465 F 781.335.6467 www.gainc.com
Boston Baltimore Orlando San Francisco

GALE

REV. NO.	DESCRIPTION	BY	APP'D	DATE

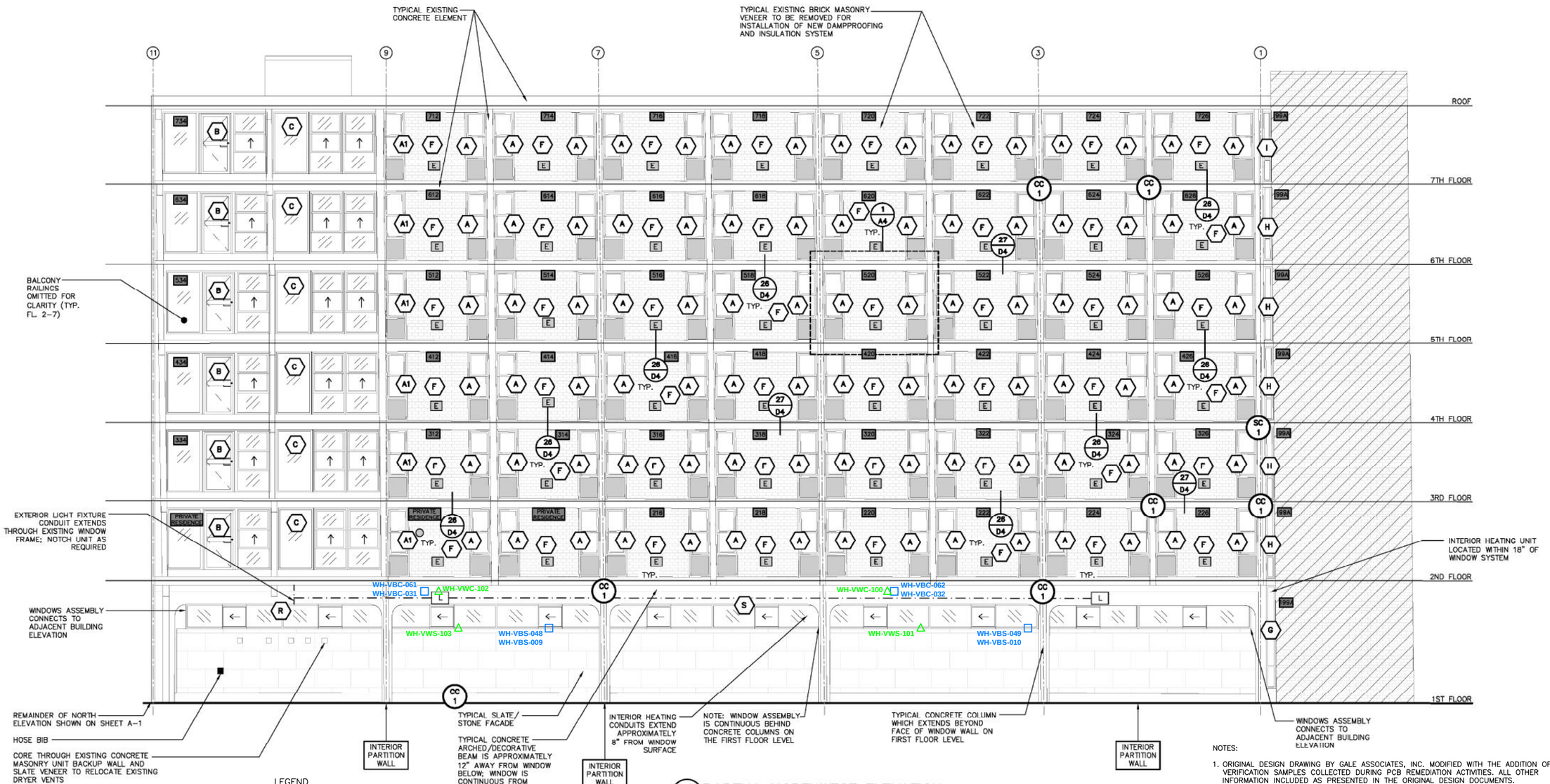
UNIVERSITY OF MASSACHUSETTS
FACILITIES AND CAMPUS PLANNING DIVISION

WEBSTER HOUSE
WINDOW REPLACEMENT
PARTIAL NORTHEAST ELEVATION

	BY	DATE
DRN.	HGM	2/3
APP'D	CM	
CKD.	CM	
APP'D	JFL	

PROJECT NO. 10-001711-01
PROJ.-CONTRACT NO. UMA 11-28
SCALE 3/16"=1'-0"
SHEET 3 OF 20
DRAWING NUMBER D A 333 10 001711 01 A1

CADD FILE: 822355\DESIGN\DWG\822355 A1-A6



2 PARTIAL NORTHWEST ELEVATION

SCALE: 3/16"=1'–0"

0 4' 8' 12'

LEGEND

WH-VWS-101 △ VERIFICATION WIPE SAMPLE LOCATION AND IDENTIFIER

WH-VBC-062 □ VERIFICATION BULK SAMPLE LOCATION AND IDENTIFIER

NOTES:

1. ORIGINAL DESIGN DRAWING BY GALE ASSOCIATES, INC. MODIFIED WITH THE ADDITION OF VERIFICATION SAMPLES COLLECTED DURING PCB REMEDIATION ACTIVITIES. ALL OTHER INFORMATION INCLUDED AS PRESENTED IN THE ORIGINAL DESIGN DOCUMENTS.
2. VERIFICATION SAMPLE LOCATIONS APPROXIMATED BASED ON FIELD MEASUREMENTS.
3. FOR SAMPLE LOCATIONS WITH MULTIPLE SAMPLES SHOWN, THE UPPER SAMPLE WAS COLLECTED FROM MATERIALS FORMERLY IN DIRECT CONTACT WITH THE CAULKED JOINT AND THE LOWER SAMPLE WAS COLLECTED FROM MATERIALS ADJACENT TO THE CAULKED JOINT. LOCATIONS OF SAMPLES WITH RESPECT TO DISTANCE FROM CAULKED JOINTS ARE PRESENTED ON TABLE 2–1.

GENERAL NOTES

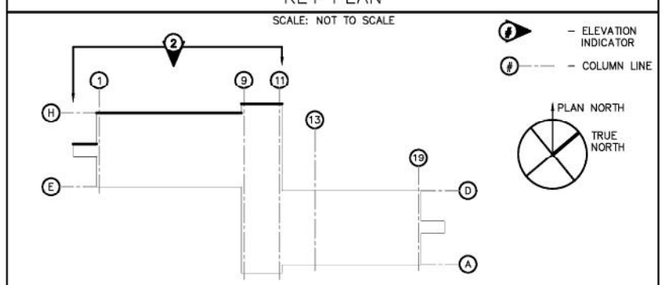
1. THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN COMPILED FROM VARIOUS SOURCES AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD.
2. HATCH PATTERNS ARE FOR REPRESENTATION ONLY AND SHALL NOT BE USED AS A FORM FOR MEASUREMENT.
3. FOR THE SAKE OF CLARITY, EACH INDIVIDUAL DETAIL HAS NOT BEEN INDICATED ON THIS DRAWING. INSTALLATION DETAILS HAVE BEEN INDICATED FOR TYPICAL COMPONENTS AT RANDOM LOCATIONS.
4. ANY CONDITION NOT DETAILED SHALL BE CONSTRUCTED IN A MANNER SIMILAR TO THAT OF THE TYPICAL DETAILS.
5. THE WINDOW SIZES VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL WINDOW SIZES IN THE FIELD.
6. ALL WINDOW FRAMES, VERTICAL MULLIONS, CLIPS AND SECUREMENTS SHALL BE DESIGNED TO WITHSTAND A 43 PSF WIND LOAD.
7. REFER TO THE WINDOW AND STOREFRONT SCHEDULE FOR ADDITIONAL INFORMATION.
8. IN GENERAL: REMOVE AND REPLACE EXISTING EXTERIOR WINDOWS, DOORS AND ENTRANCES. REFER TO SPECIFICATIONS FOR DETAILED SCOPE OF WORK.

LEGEND

- WINDOW/ PANEL INDICATOR
- DETAIL NUMBER
- DETAIL SHEET LOCATION
- NOT IN CONTRACT OR NOT REFERENCED ON THIS SHEET
- CC # — CRACKED PRECAST CONCRETE TO BE REPAIRED # INDICATES LINEAR FEET
- SC # — SPALLED CONCRETE TO BE REPAIRED # INDICATES SQUARE FEET
- EF # — EFFLORESCENCE # INDICATES SQUARE FEET
- L — LIGHT WITH CONDUIT MOUNTED TO WALL
- LIGHT SENSOR THROUGH MASONRY PANEL AND BACKUP WALL
- E — APPROXIMATE LOCATION OF ELECTRICAL BOX AND CONDUIT WITHIN BACK–UP WALL SYSTEM
- # — INTERIOR ROOM DESIGNATION NUMBER
- BRICK MASONRY PANEL
- PROVIDE 1" INSULATED PANEL AT DESIGNATED LOCATIONS
- SLATE FACADE

KEY PLAN

SCALE: NOT TO SCALE



Gale Associates, Inc.
Engineers Planners
183 Libbey Parkway | Weymouth, MA 02189-0004
P 781.335.6465 F 781.335.6467 www.gainc.com
Boston Baltimore Orlando San Francisco

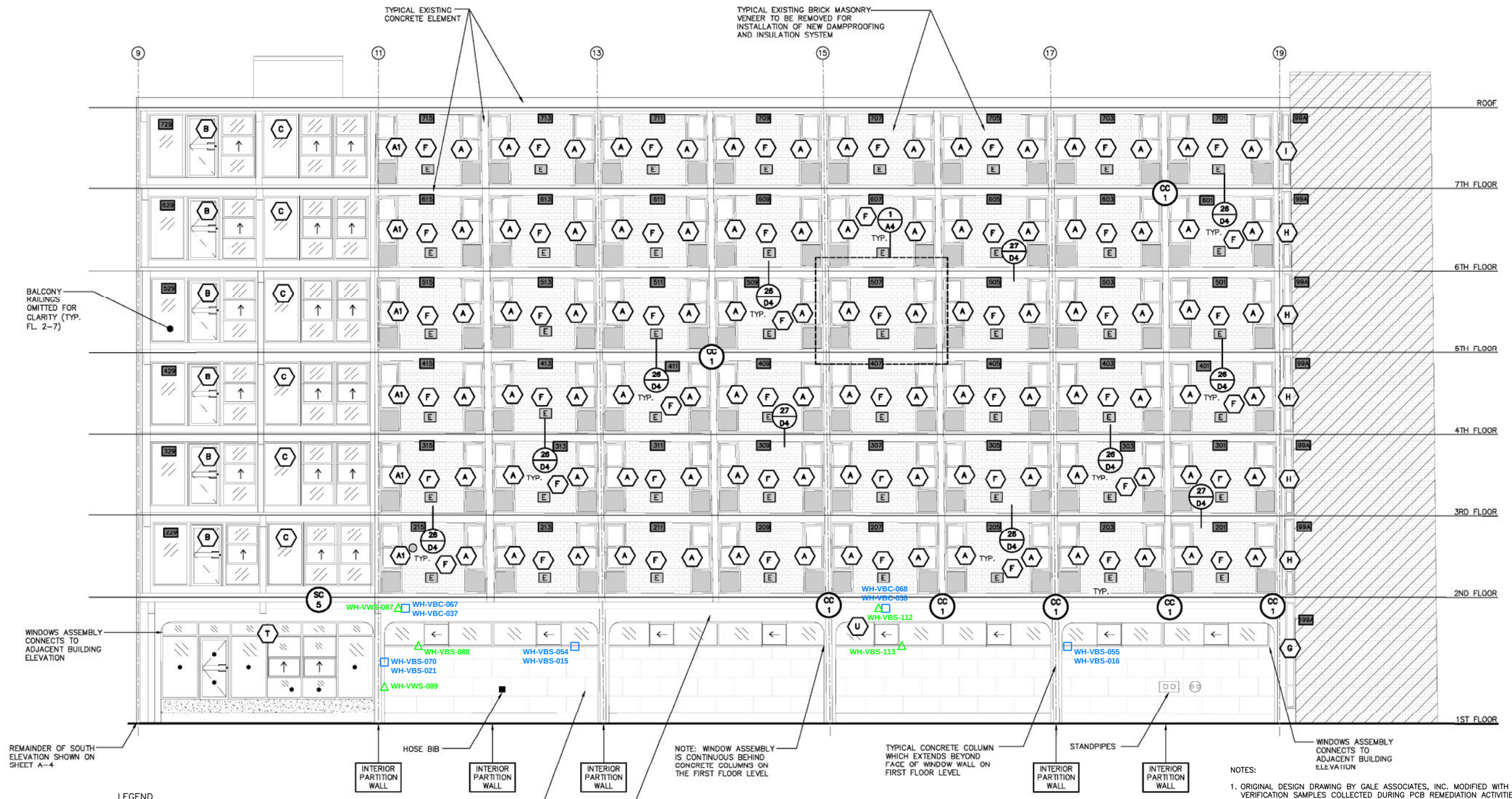
REV. NO.	DESCRIPTION	BY	APP'D	DATE

UNIVERSITY OF MASSACHUSETTS
FACILITIES AND CAMPUS PLANNING DIVISION

WEBSTER HOUSE
WINDOW REPLACEMENT
PARTIAL NORTHWEST ELEVATION

	BY	DATE	PROJECT NO. 10–001711–01	PROJ.–CONTRACT NO. UMA 11–28
DRN.	HGM	2/3	SCALE 3/16"=1'–0"	SHEET 4 OF 20
APP'D	CM			
CKD.	CM		DRAWING NUMBER	
APP'D	JFL		D A 333 10 001711 01 A3	

CADD FILE: 822355\DESIGN\DWG\822355 A1–A6



3 PARTIAL SOUTHEAST ELEVATION

SCALE: 3/16"=1'–0"

0 4' 8' 12'

NOTES:

1. ORIGINAL DESIGN DRAWING BY GALE ASSOCIATES, INC. MODIFIED WITH THE ADDITION OF VERIFICATION SAMPLES COLLECTED DURING PCB REMEDIATION ACTIVITIES. ALL OTHER INFORMATION INCLUDED AS PRESENTED IN THE ORIGINAL DESIGN DOCUMENTS.
2. VERIFICATION SAMPLE LOCATIONS APPROXIMATED BASED ON FIELD MEASUREMENTS.
3. FOR SAMPLE LOCATIONS WITH MULTIPLE SAMPLES SHOWN, THE UPPER SAMPLE WAS COLLECTED FROM MATERIALS FORMERLY IN DIRECT CONTACT WITH THE CAULKED JOINT AND THE LOWER SAMPLE WAS COLLECTED FROM MATERIALS ADJACENT TO THE CAULKED JOINT. LOCATIONS OF SAMPLES WITH RESPECT TO DISTANCE FROM CAULKED JOINTS ARE PRESENTED ON TABLE 2–1.

LEGEND

WH-VWS-089 △ VERIFICATION WIPE SAMPLE LOCATION AND IDENTIFIER

WH-VBC-055 □ VERIFICATION BULK SAMPLE LOCATION AND IDENTIFIER

GENERAL NOTES

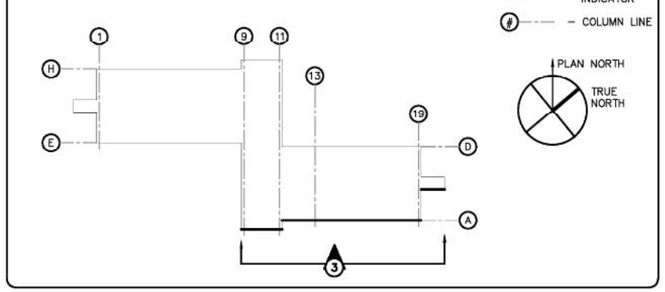
1. THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN COMPILED FROM VARIOUS SOURCES AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD.
2. HATCH PATTERNS ARE FOR REPRESENTATION ONLY AND SHALL NOT BE USED AS A FORM FOR MEASUREMENT.
3. FOR THE SAKE OF CLARITY, EACH INDIVIDUAL DETAIL HAS NOT BEEN INDICATED ON THIS DRAWING. INSTALLATION DETAILS HAVE BEEN INDICATED FOR TYPICAL COMPONENTS AT RANDOM LOCATIONS.
4. ANY CONDITION NOT DETAILED SHALL BE CONSTRUCTED IN A MANNER SIMILAR TO THAT OF THE TYPICAL DETAILS.
5. THE WINDOW SIZES VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL WINDOW SIZES IN THE FIELD.
6. ALL WINDOW FRAMES, VERTICAL MULLIONS, CLIPS AND SECUREMENTS SHALL BE DESIGNED TO WITHSTAND A 43 PSF WIND LOAD.
7. REFER TO THE WINDOW AND STOREFRONT SCHEDULE FOR ADDITIONAL INFORMATION.
8. IN GENERAL: REMOVE AND REPLACE EXISTING EXTERIOR WINDOWS, DOORS AND ENTRANCES. REFER TO SPECIFICATIONS FOR DETAILED SCOPE OF WORK.

LEGEND

- WINDOW/ PANEL INDICATOR
- DETAIL NUMBER
- DETAIL SHEET LOCATION
- NOT IN CONTRACT OR NOT REFERENCED ON THIS SHEET
- CC # — CRACKED PRECAST CONCRETE TO BE REPAIRED # INDICATES LINEAR FEET
- SC # — SPALLED CONCRETE TO BE REPAIRED # INDICATES SQUARE FEET
- EF # — EFFLORESCENCE # INDICATES SQUARE FEET
- L — LIGHT WITH CONDUIT MOUNTED TO WALL
- LIGHT SENSOR THROUGH MASONRY PANEL AND BACKUP WALL
- E — APPROXIMATE LOCATION OF ELECTRICAL BOX AND CONDUIT WITHIN BACK–UP WALL SYSTEM
- INTERIOR ROOM DESIGNATION NUMBER
- BRICK MASONRY PANEL
- PROVIDE 1" INSULATED PANEL AT DESIGNATED LOCATIONS
- SLATE FACADE

KEY PLAN

SCALE: NOT TO SCALE



Gale Associates, Inc.
Engineers Planners
183 Abbey Parkway | Weymouth, MA 02189-0004
P 781.335.6465 F 781.335.6467 www.gainc.com
Boston Baltimore Orlando San Francisco

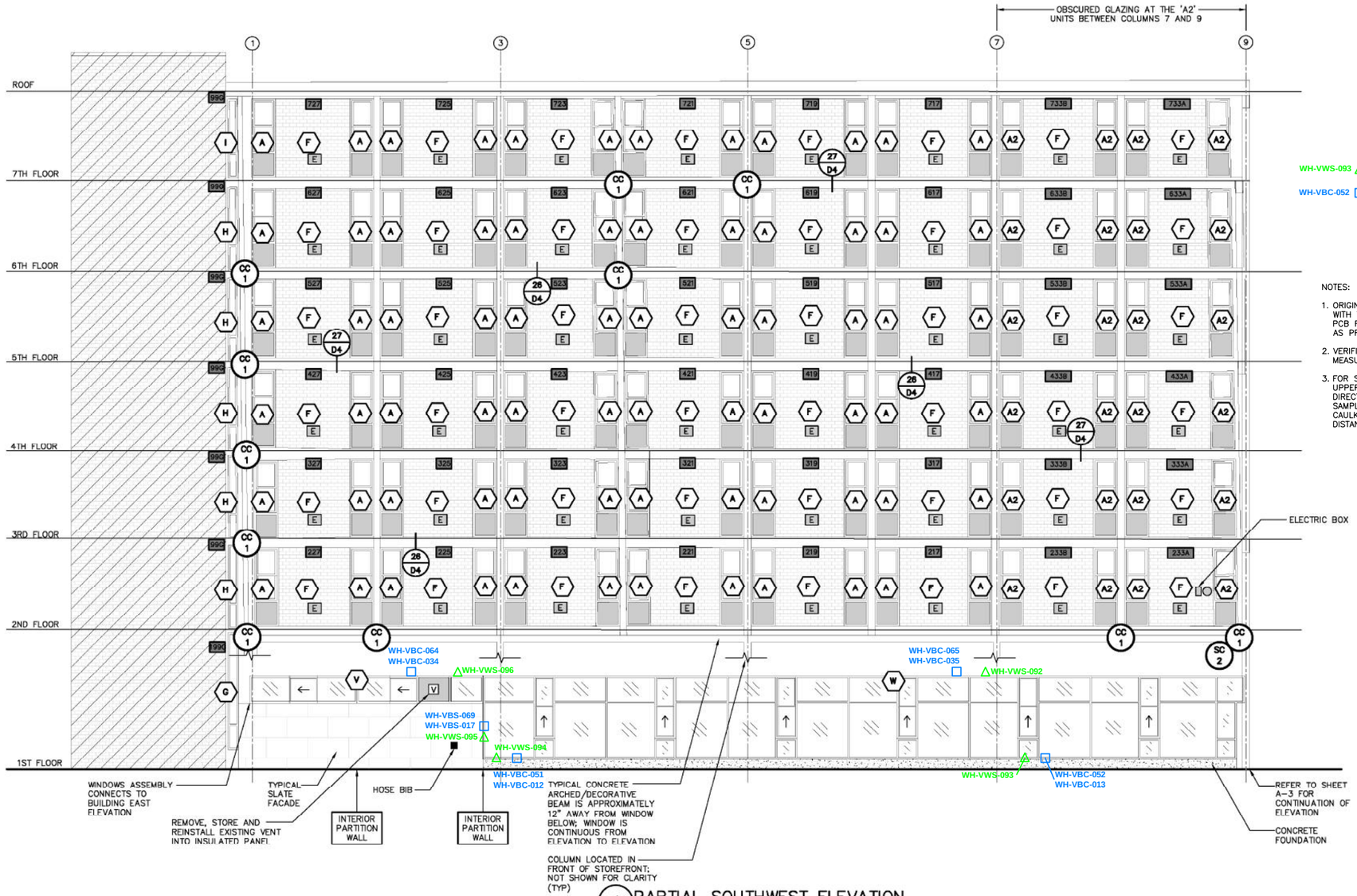
REV. NO.	DESCRIPTION	BY	APP'D	DATE

UNIVERSITY OF MASSACHUSETTS
FACILITIES AND CAMPUS PLANNING DIVISION

WEBSTER HOUSE
WINDOW REPLACEMENT
PARTIAL SOUTHEAST ELEVATION

	BY	DATE	PROJECT NO. 10–001711–01	PROJ.–CONTRACT NO. UMA 11–28
DRN.	HGM	2/3	SCALE 3/16"=1'–0"	SHEET 5 OF 20
APP'D	CM			
CKD.	CM		DRAWING NUMBER	
APP'D	JFL		D A 333 10 001711 01 A3	

CADD FILE: 822355\DESIGN\DWG\822355 A1–A6



4 PARTIAL SOUTHWEST ELEVATION

SCALE: 3/16"=1'-0"

0 4' 8' 12'

LEGEND

WH-VWS-093 △ VERIFICATION WIPE SAMPLE LOCATION AND IDENTIFIER

WH-VBC-052 □ VERIFICATION BULK SAMPLE LOCATION AND IDENTIFIER

NOTES:

1. ORIGINAL DESIGN DRAWING BY GALE ASSOCIATES, INC. MODIFIED WITH THE ADDITION OF VERIFICATION SAMPLES COLLECTED DURING PCB REMEDIATION ACTIVITIES. ALL OTHER INFORMATION INCLUDED AS PRESENTED IN THE ORIGINAL DESIGN DOCUMENTS.
2. VERIFICATION SAMPLE LOCATIONS APPROXIMATED BASED ON FIELD MEASUREMENTS.
3. FOR SAMPLE LOCATIONS WITH MULTIPLE SAMPLES SHOWN, THE UPPER SAMPLE WAS COLLECTED FROM MATERIALS FORMERLY IN DIRECT CONTACT WITH THE CAULKED JOINT AND THE LOWER SAMPLE WAS COLLECTED FROM MATERIALS ADJACENT TO THE CAULKED JOINT. LOCATIONS OF SAMPLES WITH RESPECT TO DISTANCE FROM CAULKED JOINTS ARE PRESENTED ON TABLE 2-1.

GENERAL NOTES

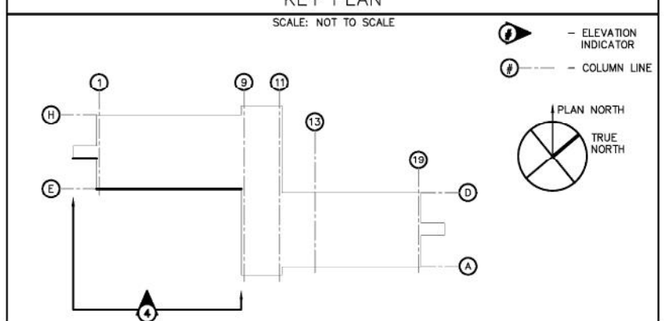
1. THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN COMPILED FROM VARIOUS SOURCES AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD.
2. HATCH PATTERNS ARE FOR REPRESENTATION ONLY AND SHALL NOT BE USED AS A FORM FOR MEASUREMENT.
3. FOR THE SAKE OF CLARITY, EACH INDIVIDUAL DETAIL HAS NOT BEEN INDICATED ON THIS DRAWING. INSTALLATION DETAILS HAVE BEEN INDICATED FOR TYPICAL COMPONENTS AT RANDOM LOCATIONS.
4. ANY CONDITION NOT DETAILED SHALL BE CONSTRUCTED IN A MANNER SIMILAR TO THAT OF THE TYPICAL DETAILS.
5. THE WINDOW SIZES VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL WINDOW SIZES IN THE FIELD.
6. ALL WINDOW FRAMES, VERTICAL MULLIONS, CLIPS AND SECUREMENTS SHALL BE DESIGNED TO WITHSTAND A 36 PSF WIND LOAD.
7. REFER TO THE WINDOW AND STOREFRONT SCHEDULE FOR ADDITIONAL INFORMATION.
8. IN GENERAL: REMOVE AND REPLACE EXISTING EXTERIOR WINDOWS, DOORS AND ENTRANCES. REFER TO SPECIFICATIONS FOR DETAILED SCOPE OF WORK.

LEGEND

- WINDOW/ PANEL INDICATOR
- DETAIL NUMBER
- DETAIL SHEET LOCATION
- NOT IN CONTRACT OR NOT REFERENCED ON THIS SHEET
- CC # — CRACKED PRECAST CONCRETE TO BE REPAIRED # INDICATES LINEAR FEET
- SC # — SPALLED CONCRETE TO BE REPAIRED # INDICATES SQUARE FEET
- EF # — EFFLORESCENCE # INDICATES SQUARE FEET
- L — LIGHT WITH CONDUIT MOUNTED TO WALL
- LIGHT SENSOR THROUGH MASONRY PANEL AND BACKUP WALL
- E — APPROXIMATE LOCATION OF ELECTRICAL BOX AND CONDUIT WITHIN BACK-UP WALL SYSTEM
- # — INTERIOR ROOM DESIGNATION NUMBER
- BRICK MASONRY PANEL
- PROVIDE 1" INSULATED PANEL AT DESIGNATED LOCATIONS
- SLATE FACADE

KEY PLAN

SCALE: NOT TO SCALE



Gale Associates, Inc.
Engineers Planners
163 Libbey Parkway | Weymouth, MA 02189-0004
P 781.335.6465 F 781.335.6467 www.gainc.com
Boston Baltimore Orlando San Francisco

GALE

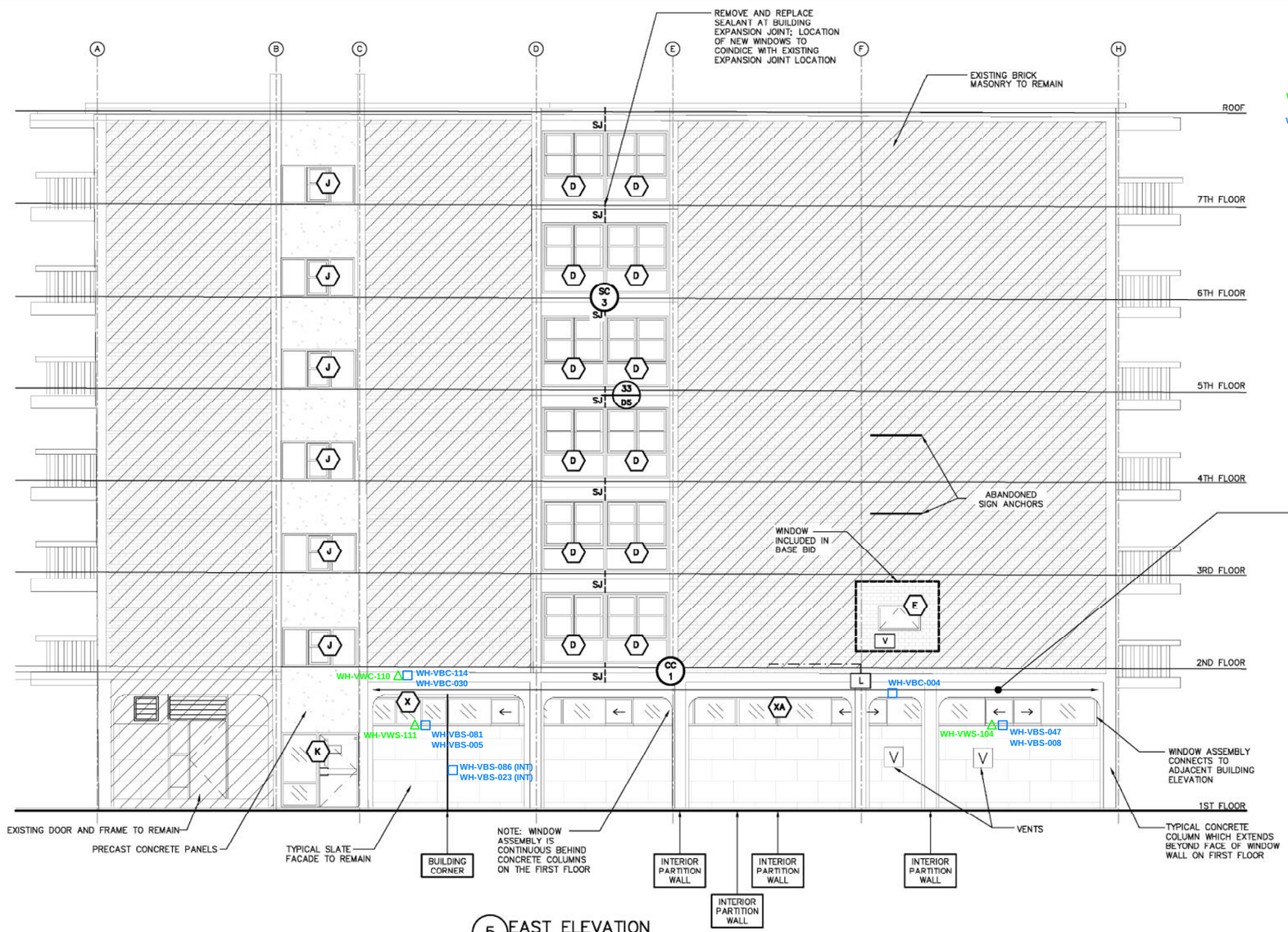
REV. NO.	DESCRIPTION	BY	APP'D	DATE

UNIVERSITY OF MASSACHUSETTS
FACILITIES AND CAMPUS PLANNING DIVISION

WEBSTER HOUSE
WINDOW REPLACEMENT
PARTIAL SOUTHWEST ELEVATION

	BY	DATE	PROJECT NO. 10-001711-01	PROJ.-CONTRACT NO. UMA 11-28
DRN.	HGM	2/3	SCALE 3/16"=1'-0"	SHEET 6 OF 20
APP'D	CM			
CKD.	CM		DRAWING NUMBER	
APP'D	JFL		D A 333 10 001711 01 A4	

CADD FILE: 822355\DESIGN\DWG\822355 A1-A6



5 EAST ELEVATION
SCALE: 3/16"=1'-0"
0 4' 8' 12'

LEGEND

WH-VWS-110 △ VERIFICATION WIPE SAMPLE LOCATION AND IDENTIFIER

WH-VBS-023 □ VERIFICATION BULK SAMPLE LOCATION AND IDENTIFIER

(INT) SAMPLES COLLECTED FROM INTERIOR LOCATIONS

NOTES:

1. ORIGINAL DESIGN DRAWING BY GALE ASSOCIATES, INC. MODIFIED WITH THE ADDITION OF VERIFICATION SAMPLES COLLECTED DURING PCB REMEDIATION ACTIVITIES. ALL OTHER INFORMATION INCLUDED AS PRESENTED IN THE ORIGINAL DESIGN DOCUMENTS.
2. VERIFICATION SAMPLE LOCATIONS APPROXIMATED BASED ON FIELD MEASUREMENTS.
3. FOR SAMPLE LOCATIONS WITH MULTIPLE SAMPLES SHOWN, THE UPPER SAMPLE WAS COLLECTED FROM MATERIALS FORMERLY IN DIRECT CONTACT WITH THE CAULKED JOINT AND THE LOWER SAMPLE WAS COLLECTED FROM MATERIALS ADJACENT TO THE CAULKED JOINT. LOCATIONS OF SAMPLES WITH RESPECT TO DISTANCE FROM CAULKED JOINTS ARE PRESENTED ON TABLE 2-1.

GENERAL NOTES

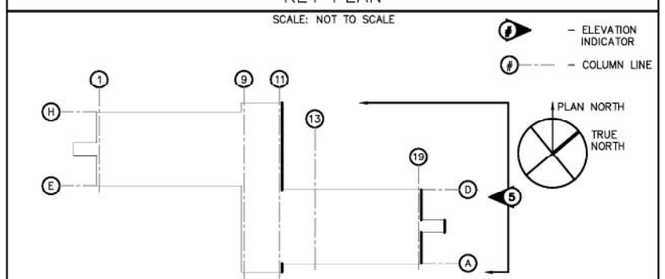
1. THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN COMPILED FROM VARIOUS SOURCES AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD.
2. HATCH PATTERNS ARE FOR REPRESENTATION ONLY AND SHALL NOT BE USED AS A FORM FOR MEASUREMENT.
3. FOR THE SAKE OF CLARITY, EACH INDIVIDUAL DETAIL HAS NOT BEEN INDICATED ON THIS DRAWING. INSTALLATION DETAILS HAVE BEEN INDICATED FOR TYPICAL COMPONENTS AT RANDOM LOCATIONS.
4. ANY CONDITION NOT DETAILED SHALL BE CONSTRUCTED IN A MANNER SIMILAR TO THAT OF THE TYPICAL DETAILS.
5. THE WINDOW SIZES VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL WINDOW SIZES IN THE FIELD.
6. ALL WINDOW FRAMES, VERTICAL MULLIONS, CLIPS AND SECUREMENTS SHALL BE DESIGNED TO WITHSTAND A 43 PSF WIND LOAD.
7. REFER TO THE WINDOW AND STOREFRONT SCHEDULE FOR ADDITIONAL INFORMATION.
8. IN GENERAL: REMOVE AND REPLACE EXISTING EXTERIOR WINDOWS, DOORS AND ENTRANCES. REFER TO SPECIFICATIONS FOR DETAILED SCOPE OF WORK.

LEGEND

- WINDOW/ PANEL INDICATOR
- DETAIL NUMBER
- DETAIL SHEET LOCATION
- NOT IN CONTRACT OR NOT REFERENCED ON THIS SHEET
- CC # — CRACKED PRECAST CONCRETE TO BE REPAIRED # INDICATES LINEAR FEET
- SC # — SPALLED CONCRETE TO BE REPAIRED # INDICATES SQUARE FEET
- EF # — EFFLORESCENCE # INDICATES SQUARE FEET
- L — LIGHT WITH CONDUIT MOUNTED TO WALL
- LIGHT SENSOR THROUGH MASONRY PANEL AND BACKUP WALL
- E — APPROXIMATE LOCATION OF ELECTRICAL BOX AND CONDUIT WITHIN BACK-UP WALL SYSTEM
- # — INTERIOR ROOM DESIGNATION NUMBER
- BRICK MASONRY PANEL
- PROVIDE 1" INSULATED PANEL AT DESIGNATED LOCATIONS
- SLATE FACADE

KEY PLAN

SCALE: NOT TO SCALE



Gale Associates, Inc.
Engineers Planners
183 Libbey Parkway | Weymouth, MA 02189-0004
P 781.335.6465 F 781.335.6467 www.gainc.com
Boston Baltimore Orlando San Francisco

GALE

REV. NO.	DESCRIPTION	BY	APP'D	DATE

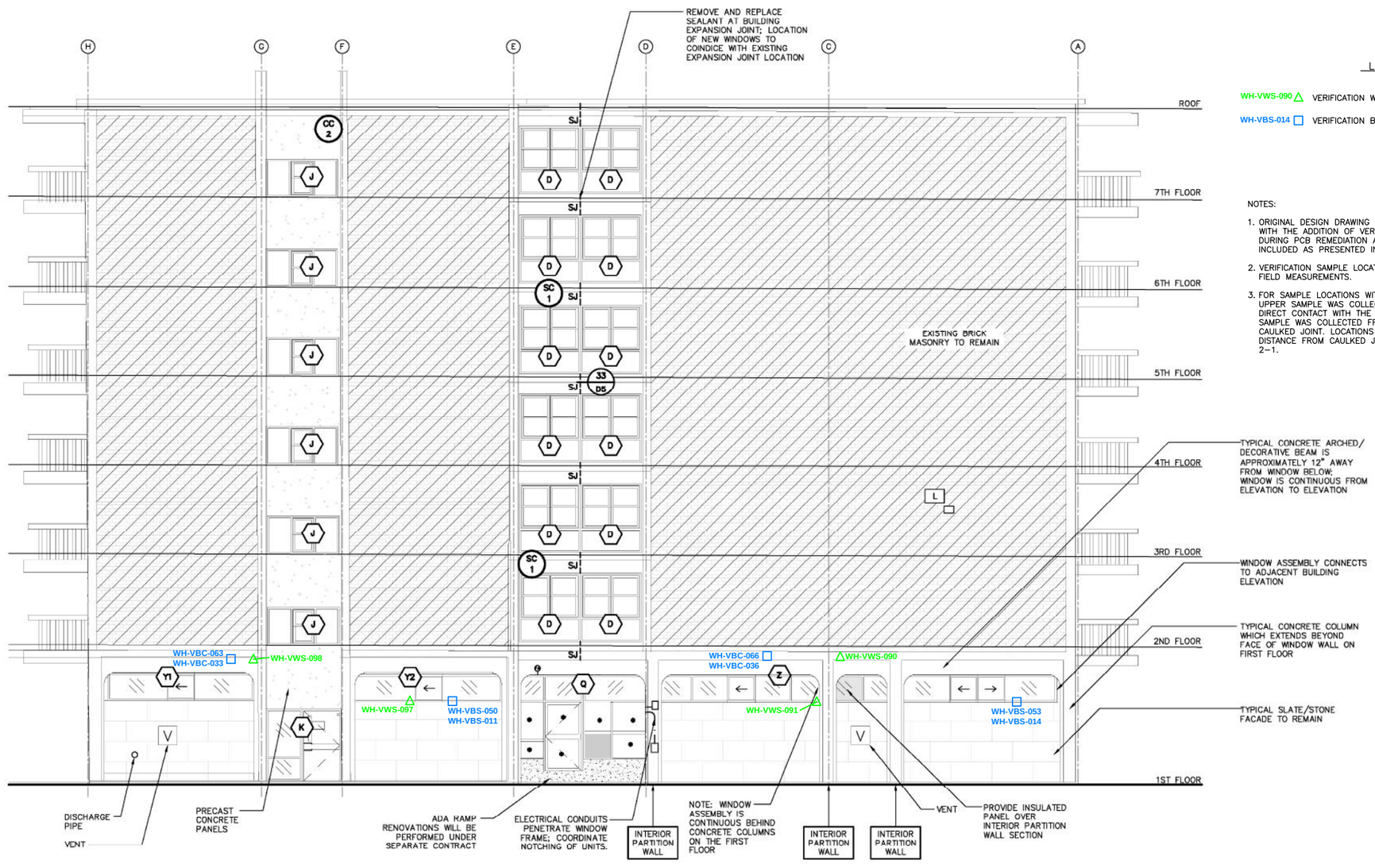
UNIVERSITY OF MASSACHUSETTS
FACILITIES AND CAMPUS PLANNING DIVISION

WEBSTER HOUSE
WINDOW REPLACEMENT
EAST ELEVATION

	BY	DATE
DRN.	HGM	2/3
APP'D	CM	
CKD.	CM	
APP'D	JFL	

PROJECT NO. 10-001711-01
PROJ.-CONTRACT NO. UMA 11-28
SCALE 3/16"=1'-0"
SHEET 7 OF 20
DRAWING NUMBER D A 333 10 001711 01 A5

CADD FILE: 822355\DESIGN\DWG\822355 A1-A6



6 WEST ELEVATION

SCALE: 3/16"=1'-0"

0 4' 8' 12'

LEGEND

WH-VWS-090 △ VERIFICATION WIPE SAMPLE LOCATION AND IDENTIFIER

WH-VBS-014 □ VERIFICATION BULK SAMPLE LOCATION AND IDENTIFIER

NOTES:

1. ORIGINAL DESIGN DRAWING BY GALE ASSOCIATES, INC. MODIFIED WITH THE ADDITION OF VERIFICATION SAMPLES COLLECTED DURING PCB REMEDIATION ACTIVITIES. ALL OTHER INFORMATION INCLUDED AS PRESENTED IN THE ORIGINAL DESIGN DOCUMENTS.
2. VERIFICATION SAMPLE LOCATIONS APPROXIMATED BASED ON FIELD MEASUREMENTS.
3. FOR SAMPLE LOCATIONS WITH MULTIPLE SAMPLES SHOWN, THE UPPER SAMPLE WAS COLLECTED FROM MATERIALS FORMERLY IN DIRECT CONTACT WITH THE CAULKED JOINT AND THE LOWER SAMPLE WAS COLLECTED FROM MATERIALS ADJACENT TO THE CAULKED JOINT. LOCATIONS OF SAMPLES WITH RESPECT TO DISTANCE FROM CAULKED JOINTS ARE PRESENTED ON TABLE 2-1.

GENERAL NOTES

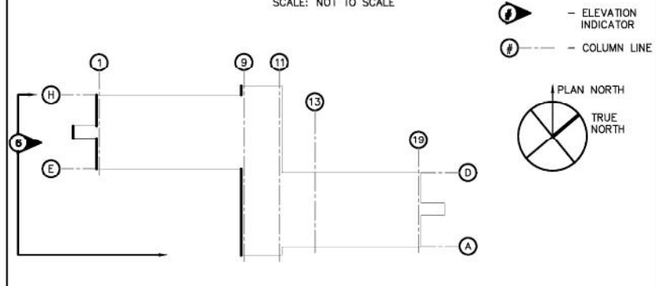
1. THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN COMPILED FROM VARIOUS SOURCES AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD.
2. HATCH PATTERNS ARE FOR REPRESENTATION ONLY AND SHALL NOT BE USED AS A FORM FOR MEASUREMENT.
3. FOR THE SAKE OF CLARITY, EACH INDIVIDUAL DETAIL HAS NOT BEEN INDICATED ON THIS DRAWING. INSTALLATION DETAILS HAVE BEEN INDICATED FOR TYPICAL COMPONENTS AT RANDOM LOCATIONS.
4. ANY CONDITION NOT DETAILED SHALL BE CONSTRUCTED IN A MANNER SIMILAR TO THAT OF THE TYPICAL DETAILS.
5. THE WINDOW SIZES VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL WINDOW SIZES IN THE FIELD.
6. ALL WINDOW FRAMES, VERTICAL MULLIONS, CLIPS AND SECUREMENTS SHALL BE DESIGNED TO WITHSTAND A 43 PSF WIND LOAD.
7. REFER TO THE WINDOW AND STOREFRONT SCHEDULE FOR ADDITIONAL INFORMATION.
8. IN GENERAL: REMOVE AND REPLACE EXISTING EXTERIOR WINDOWS, DOORS AND ENTRANCES. REFER TO SPECIFICATIONS FOR DETAILED SCOPE OF WORK.

LEGEND

- WINDOW/ PANEL INDICATOR
- DETAIL NUMBER
- DETAIL SHEET LOCATION
- NOT IN CONTRACT OR NOT REFERENCED ON THIS SHEET
- CC # — CRACKED PRECAST CONCRETE TO BE REPAIRED # INDICATES LINEAR FEET
- SC # — SPALLED CONCRETE TO BE REPAIRED # INDICATES SQUARE FEET
- EF # — EFFLORESCENCE # INDICATES SQUARE FEET
- L — LIGHT WITH CONDUIT MOUNTED TO WALL
- LIGHT SENSOR THROUGH MASONRY PANEL AND BACKUP WALL
- E — APPROXIMATE LOCATION OF ELECTRICAL BOX AND CONDUIT WITHIN BACK-UP WALL SYSTEM
- # — INTERIOR ROOM DESIGNATION NUMBER
- BRICK MASONRY PANEL
- PROVIDE 1" INSULATED PANEL AT DESIGNATED LOCATIONS
- SLATE FACADE

KEY PLAN

SCALE: NOT TO SCALE



Gale Associates, Inc.
Engineers Planners
163 Libbey Parkway | Weymouth, MA 02189-0004
P 781.335.6465 F 781.335.6487 www.gainc.com
Boston Baltimore Orlando San Francisco

GALE

REV. NO.	DESCRIPTION	BY	APP'D	DATE

UNIVERSITY OF MASSACHUSETTS
FACILITIES AND CAMPUS PLANNING DIVISION

WEBSTER HOUSE
WINDOW REPLACEMENT
WEST ELEVATION

	BY	DATE		
DRN.	HGM	2/3	PROJECT NO. 10-001711-01	PROJ.-CONTRACT NO. UMA 11-20
APP'D	CM		SCALE 3/16"=1'-0"	SHEET 6 OF 20
CKD.	CM		DRAWING NUMBER	
APP'D	JFL		D A 333 10 001711 01 A6	

CADD FILE: 822355\DESIGN\DWG\822355 A1-A6

APPENDIX E: WASTE DISPOSAL DOCUMENTATION

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MAD000844678
2. Page 1 of: 1
3. Emergency Response Phone: (508) 872-5000
4. Manifest Tracking Number: 008777355 JJK

5. Generator's Name and Mailing Address: UNIVERSITY OF MASSACHUSETTS
40 CAMPUS CENTER DRAPER HALL
AMHERST, MA 01003
Generator's Phone: (413) 545-2717 Attn: Jim Field

Generator's Site Address (if different than mailing address):
121 ORCHARD HILL ROAD
AMHERST MA 01003

6. Transporter 1 Company Name: CLEAN VENTURE, INC.
U.S. EPA ID Number: NJ0000027173

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: GENERAL CHEMICAL CORP.
133 LELAND STREET
FRAMINGHAM, MA 01702
Facility's Phone: (508) 872-5000
U.S. EPA ID Number: MAD019371379

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3432 POLYCHLORINATED BIPHENYLS, SOLID 9 PG II 34092 ERG# 171	001	CM	4545	K	MA02		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information: 806151/806869/855538/21732 (1)PCBSL-1 PCB CAULKING & DEBRIS
OUT OF SERVICE DATE: 8/10/11
RT839

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: DENNIS D. GAGNON
Signature:
Month 8 Day 10 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: PAT McGillicuddy
Signature:
Month 08 Day 10 Year 11
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: R. Swaitz
Signature:
Month 08 Day 11 Year 11

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY'S COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MAD019371379
2. Page 1 of: 1
3. Emergency Response Phone: (508) 872-5000
4. Manifest Tracking Number: 008777406 JJK

5. Generator's Name and Mailing Address: GENERAL CHEMICAL CORP.
133 LELAND ST
FRAMINGHAM, MA 01701
Generator's Phone: (508) 872-5000

Generator's Site Address (if different than mailing address):

6. Transporter 1 Company Name: CLEAN VENTURE, INC.
U.S. EPA ID Number: NJ0000027193

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: WAYNE DISPOSAL, INC.
459350 N. SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: (313) 697-7830
U.S. EPA ID Number: MID048090633

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3432 RQ, POLYCHLORINATED BIPHENYLS, SOLID (PCB CAULKING & DEBRIS) 9 PG II ERG# 171	1	CM	4545	K	MA02	PCB6	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information: PS #2013 OSD: 08/10/11; UNIQUE DRUM #: 84092; PROFILE #: K0851 12WDI; D#: 8539; PO#: 11-7693 (1)K085112WDI

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Elissa L. Sarler
Signature: Elissa L. Sarler
Month 08 Day 11 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jose Ramirez
Signature:
Month 8 Day 11 Year 11
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. DCb 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [illegible]
Signature:
Month 08 Day 12 Year 11

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

General Chemical Corporation

Responsive Environmental Management Services

November 30, 2011

UNIVERSITY OF MASSACHUSETTS
40 CAMPUS CENTER
DRAPER HALL
AMHERST, MA 01003

Broker:PAUL POLANCO JOSE PENA: 978-794-2120
A & J DEMO SERVICES CORP.
599 CANAL STREET
FLOOR 5, SUITE 8
LAWRENCE, MA 01840

Re: Certificate of Disposal/Recycling
For: UNIVERSITY OF MASSACHUSETTS
121 ORCHARD HILL ROAD
AMHERST, MA 01003

Dear Sir/Madam:

This letter is to certify that General Chemical Corp., EPA ID No. MAD019371079 has accepted and processed the following shipments. This acceptance is in accordance with all State & Federal Regulations and with the requirements set forth in General Chemical's Hazardous Waste Facility Permit.

Prod Code	Manifest In	Date In	Manifest Out	Date Out	Sent	Disposal Facility	Disposal Method
off-spec (orig)							
PCBSL	008777355JJK-1	08/11/2011	008777406JJK	08/11/2011	1 x DM	WAYNE DISPOSAL, INC. (WAYN)	rcra/tsca landfill

If there are any further questions about the management of your waste, please do not hesitate to call.

Sincerely

Stephen M. Ganley
General Manager

133-138 Leland Street • Framingham, MA 01702
Phone: (508) 872-5000 • Fax: (508) 875-5271
www.cyclechem.com

Corporate Office: 201 South First Street Elizabeth, NJ 07206 (908) 355-5800 Fax: (908) 355-3495
New Jersey TSDF: 217 South First Street Elizabeth, NJ 07206 (908) 355-5800 Fax: (908) 355-0562
North Jersey Office: 36 Butler Street Elizabeth, NJ 07206 (908) 354-0210 Fax: (908) 355-3495
South Jersey Office: 600 Cenco Boulevard Clayton, NJ 08312 (856) 863-8778 Fax: (856) 863-3725
Pennsylvania TSDF: 550 Industrial Drive Lewisberry, PA 17339 (717) 938-4700 Fax: (717) 938-3301
Maryland Office: 2931 Whittington Avenue Baltimore, MD 21230 (410) 368-9170 Fax: (410) 368-9171
Maryland Office: 23655 Royal Oak Road Quantico, MD 21856 (410) 677-6720 Fax: (410) 677-6723

COD #2

CERTIFICATE OF DISPOSAL

FOR MANIFESTED PCB WASTE

This certificate is to verify the wastes identified as PCB Solid

and specified on Manifest # 008777406, Line Item 1 has been landfilled on

8/12/2001 in accordance with all local, state and federal regulations by:

Wayne Disposal, Inc.

(EPA I.D. # MID048090633)

49350 N. I-94 Service Drive, Belleville, Michigan 48111
Telephone: 1-800-KWALITY (592-5489)
Fax: 1-800-KWALFAX (592-5329)

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompnying this document is true, accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who are acting under my direct instructions made the verification that this information is true accurate and complete.

Authorized Signature:

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MAD000844670
2. Page 1 of: 1
3. Emergency Response Phone: (508) 872-5000
4. Manifest Tracking Number: 008777433 JJK

5. Generator's Name and Mailing Address: UNIVERSITY OF MASSACHUSETTS
40 CAMPUS CENTER DRAPER HALL
AMHERST, MA 01003
Generator's Phone: (413) 545-2717 Attn: J. Field

Generator's Site Address (if different than mailing address): 121 ORCHARD HILL ROAD
AMHERST MA 01003

6. Transporter 1 Company Name: CLEAN VENTURE, INC. — U.S. EPA ID Number: NJ0000027193

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: GENERAL CHEMICAL CORP.
130 LELAND STREET
FRAMINGHAM, MA 01702
Facility's Phone: (508) 872-5000 — U.S. EPA ID Number: MAD019371079

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3432 POLYCHLORINATED BIPHENYLS, SOLID 9 PG II 84276-84278 ERG# 171	XX3	CW	1200	P	MA02
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: E06151/806089/65624/21845 (1)PCBSL-1 PCB CAULKING & DEBRIS
03X TPAK Use 001 Date - 8/15/11

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: DENNIS D. GAGNON — Signature: [signature] — Month 8 Day 15 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Rick Cossette — Signature: [signature] — Month 8 Day 15 Year 11
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Chris Damon — Signature: [signature] — Month 8 Day 16 Year 11

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY'S COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MAØØ19371Ø79
2. Page 1 of: 1
3. Emergency Response Phone: (5Ø8) 872-5ØØØ
4. Manifest Tracking Number: 008777509 JJK

5. Generator's Name and Mailing Address: GENERAL CHEMICAL CORP.
133 LELAND ST
FRAMINGHAM, MA Ø1701
Generator's Phone: (5Ø8) 872-5ØØØ
Generator's Site Address (if different than mailing address):

6. Transporter 1 Company Name: E Q NORTHEAST INC
U.S. EPA ID Number: MAD984814136

7. Transporter 2 Company Name: EQ Industrial Services
U.S. EPA ID Number: MIDØØ2253871

8. Designated Facility Name and Site Address: WAYNE DISPOSAL, INC.
459350 N. SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: (313) 697-7830
U.S. EPA ID Number: MIDØ48929633

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3432 RQ, POLYCHLORINATED BIPHENYLS, SOLID (PCB CONTAMINATED DEBRIS) 9 PG II ERG# 171	3	CF	621	K	MAØØ2	PCB6	
	[redacted]							
	[redacted]							
	4.							

14. Special Handling Instructions and Additional Information: PS #2031 1.) DSD: Ø3/15/11; DRUM #'S: 84276-84278; [redacted]
L#: 8548. PO#: 11-7696

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Elissa L. Sader
Signature: Elissa L. Sader
Month: 08 Day: 22 Year: 11

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Joseph Cole
Signature:
Month: 08 Day: 22 Year: 11

Transporter 2 Printed/Typed Name:
Signature: Ryan Rushman
Month: 8 Day: 24 Year: 11

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
PCB	PCB	PCB	

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Ashley Button
Signature: Ashley Button
Month: 09 Day: 01 Year: 11

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

General Chemical Corporation

Responsive Environmental Management Services

November 30, 2011

UNIVERSITY OF MASSACHUSETTS
40 CAMPUS CENTER
DRAPER HALL
AMHERST, MA 01003

Broker:PAUL POLANCO JOSE PENA: 978-794-2120
A & J DEMO SERVICES CORP.
599 CANAL STREET
FLOOR 5, SUITE 8
LAWRENCE, MA 01840

Re: Certificate of Disposal/Recycling
For: UNIVERSITY OF MASSACHUSETTS
121 ORCHARD HILL ROAD
AMHERST, MA 01003

Dear Sir/Madam:

This letter is to certify that General Chemical Corp., EPA ID No. MAD019371079 has accepted and processed the following shipments. This acceptance is in accordance with all State & Federal Regulations and with the requirements set forth in General Chemical's Hazardous Waste Facility Permit.

Prod Code	Manifest In	Date In	Manifest Out	Date Out	Sent	Disposal Facility	Disposal Method
*off-spec (orig)							
PCBSL	008777433JJK-1	08/16/2011	008777509JJK	08/22/2011	3 x CF	WAYNE DISPOSAL, INC. (WAYN)	rcra/tsca landfill

If there are any further questions about the management of your waste, please call (508) 872-5000.

Sincerely

Stephen M. Ganley
General Manager

133-138 Leland Street • Framingham, MA 01702
Phone: (508) 872-5000 • Fax: (508) 875-5271
www.cyclechem.com

Corporate Office: 201 South First Street Elizabeth, NJ 07206 (908) 355-5800 Fax (908) 355-3495
New Jersey TSDF: 217 South First Street Elizabeth, NJ 07206 (908) 355-5800 Fax (908) 355-0562
North Jersey Office: 36 Butler Street Elizabeth, NJ 07206 (908) 354-0210 Fax (908) 355-3495
South Jersey Office: 800 Cenco Boulevard Clayton, NJ 08312 (856) 863-8778 Fax (856) 883-3725
Pennsylvania TSDF: 550 Industrial Drive Lewisberry, PA 17339 (717) 938-4700 Fax (717) 938-3301
Maryland Office: 2931 Whittington Avenue Baltimore, MD 21230 (410) 366-9170 Fax (410) 366-9171
Maryland Office: 23655 Royal Oak Road Quantico, MD 21856 (410) 677-6720 Fax (410) 677-6723

CERTIFICATE OF DISPOSAL

FOR MANIFESTED PCB WASTE

This certificate is to verify the wastes identified as PCB Solid

and specified on Manifest # 008777509JJK, Line Item 1 has been landfilled on

9/1, 2011 in accordance with all local, state and federal regulations by:

Wayne Disposal, Inc.

(EPA I.D. # MID048090633)

49350 N. I-94 Service Drive, Belleville, Michigan 48111
Telephone: 1-800-KWALITY (592-5489)
Fax: 1-800-KWALFAX (592-5329)

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy. I certify as the company official having supervisory responsibility for the persons who are acting under my direct instructions made the verification that this information is true accurate and complete.

Authorized Signature: _____

APPENDIX F: MONITORING AND MAINTENANCE IMPLEMENTATION PLAN

MONITORING AND MAINTENANCE IMPLEMENTATION PLAN

University of Massachusetts

Webster House

Amherst, Massachusetts

224189

UMass Webster House

January 2012

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

TABLE OF CONTENTS

SECTION **PAGE NO.**

1. INTRODUCTION 1-1

1.1 Background 1-1
1.2 Encapsulation/Barrier Installation Areas 1-2
1.3 Baseline Sampling 1-2

2. MONITORING AND MAINTENANCE IMPLEMENTATION PLAN 2-1

2.1 Inspection, Sampling, and Reporting 2-1
2.2 Action Levels and Corrective Measures 2-2

3. TRAINING AND COMMUNICATIONS 3-1

LIST OF FIGURES

Figure 1-1: Site Plan and Deed Notice Area

Figure 2-1: Encapsulated Building Surfaces

LIST OF TABLES

Table 1-1: Summary of Verification Bulk Sample Results

Table 1-2: Summary of Verification Wipe Sample Results

1. INTRODUCTION

This Monitoring and Maintenance Implementation Plan (MMIP) has been prepared by Woodard & Curran (W&C) on behalf of the University of Massachusetts (UMass) pursuant to Condition 16 of the United States Environmental Protection Agency's (EPA) July 5, 2011 PCB Decontamination and Disposal Approval issued under 40 CFR 761.61(c) and 761.79(h) for the Webster House. This plan presents the monitoring and maintenance activities that will be conducted to assess the long-term effectiveness of the encapsulants applied, as an interim measure, to residual concentrations of polychlorinated biphenyls (PCBs) detected in exterior concrete and interior concrete masonry unit (CMU) block materials at a portion of the Webster House in the Orchard Hill Residential Complex on the UMass Campus in Amherst, Massachusetts (see Figure 1-1).

1.1 BACKGROUND

The Webster House, originally constructed in 1965, is a residential dormitory for undergraduate students. The building is seven stories high with student rooms on the second through seventh floors and common areas and meeting rooms on the first floor. A window and door replacement project was conducted in the summer of 2011 consisting of the removal and replacement of exterior doors and windows. As described in the Notification[1], ≥ 50 ppm PCB containing caulking was detected in some of the caulking around select windows and doors.

In summary, the remediation activities related to this ≥ 50 ppm PCB containing caulking included the following activities:

- Removal and off-site disposal of PCB waste:
    - A total of 5.6 tons of bulk PCB waste (caulking, window and door frames and components, etc.) contained in one roll-off container and three cubic yard boxes was removed for off-site disposal as ≥ 50 ppm PCB wastes and ACM at Environmental Quality's Wayne Disposal Landfill in Belleville, Michigan;
    - Poly sheeting, decontamination materials, PPE, and disposable tools and equipment were transported to the Minerva disposal facility in Waynesburg, Ohio for disposal as ACM with < 50 ppm PCBs. Caulking considered excluded PCB products and associated window frames and components were transported in the same waste stream for disposal as ACM with < 50 ppm PCBs;
- Encapsulation of residual PCBs remaining in masonry surfaces of the building (at concentrations > 1 ppm) using a combination of liquid coatings and physical barriers; and
- A deed notice will be recorded identifying the encapsulated areas, and a long term monitoring and maintenance program is being implemented to assess and verify the effectiveness of the coatings / barriers over time.

Following the removal of the ≥ 50 ppm PCB caulking, bulk verification samples were collected from building materials formerly in direct contact with and away from the caulked joints that contained PCBs at concentrations ≥ 50 ppm to determine whether or not PCBs were present at concentrations above the high occupancy use cleanup level of 1

[1] Information was prepared by W&C on behalf of UMass to satisfy the requirements under 40 CFR 761.61(c) and 761.79(h). Information was submitted on March 31, 2011 (PCB Remediation Plan) and June 10, 2011 (Response to Comments). These submittals together form the "Notification."

ppm. Samples were collected from exterior first floor masonry surfaces and CMU blocks of elevator lobby window openings at a frequency of one sample per 50 l.f. of caulked joint and from interior CMU block adjacent to the elevator lobby windows at a frequency of one sample per floor. The locations and analytical results of the verification sampling are summarized in Table 1-1.

As indicated on Table 1-1, analytical results indicated that PCBs were reported as either non-detect or ≤ 1 ppm in 25 of 26 samples collected from materials (concrete and slate surfaces) formerly in direct contact with the first floor exterior caulked joints. Total PCBs were reported at a concentration of 4.3 ppm in one sample collected from the concrete ceiling above the first floor ribbon windows along the northwest building elevation.

Analytical results indicated that PCBs were reported as non-detect or ≤ 1 ppm in all 26 samples collected from materials away from the first floor exterior caulked joints (collected at varying distances from the former joint based on the project specifications), indicating that no surfaces beyond one former direct contact location contained PCBs above the 1 ppm cleanup level.

Analytical results from CMU block materials associated with the elevator hall windows indicated that PCBs were present in two of the six samples collected of materials formerly in direct contact with interior caulking at concentrations of 1.9 and 7.2 ppm. Results from the remaining four samples indicated that PCBs were non-detect; however, two of these four samples were reported with elevated minimum laboratory reporting limits (i.e., > 1 ppm). Results of CMU block samples collected at a distance of two to three inches from the caulked joint indicated that PCBs were present at concentrations ranging from 0.49 to 4.9 ppm with five of the six samples containing PCBs at concentrations above the 1 ppm cleanup level. Based on these results, the project team decided to extend the encapsulation area to include the entire interior CMU block wall to the first 90-degree angle. Verification samples of CMU block were collected immediately past the first 90-degree corner from the caulked joints, which corresponded to a distance of either 6.5 or 18 inches depending on window construction details. Results from these six samples indicated that PCBs were present at concentrations < 1 ppm in all samples (average concentration of approximately 0.55 ppm).

1.2 ENCAPSULATION/BARRIER INSTALLATION AREAS

Based on the presence of PCBs in portions of the first floor exterior concrete ceiling materials and the interior CMU block in the elevator hall areas at concentrations exceeding 1 ppm, the concrete ceiling in the vicinity of verification sample WH-VBC-061 and interior CMU materials from the elevator hall windows to the first 90-degree angle and above the window to the structural concrete ceiling are being managed in-place in accordance with the approved Remediation Plan. This approach has removed the source material (caulking) and is utilizing a physical barrier approach (encapsulation) to eliminate the direct contact exposure pathway and migration pathways of PCBs remaining in the building materials.

Due to the overall project schedule, following removal of the windows and the collection of the building material verification samples, the epoxy coating was immediately applied to allow for the installation of the replacement windows and the sheet metal cladding as quickly as possible (i.e., two coats of epoxy coating were installed on all building materials formerly in direct contact with the caulked joints and to the distances specified in the PCB remediation plan without consideration to the results of the verification sampling).

1.3 BASELINE SAMPLING

After these coatings were applied and allowed to cure, baseline surface wipe samples were collected from the epoxy-encapsulated surfaces within the joint at the same three locations sampled during the bulk verification sample phase.

Based on the overall project schedule, wipe samples were collected immediately following cure of the epoxy to allow for the installation of the windows to be conducted.

Baseline wipe samples were collected from the interior CMU block of the elevator hall areas following application of the Sikagard 550W at a sample frequency of one wipe sample per floor. Wipe samples were evenly divided between the windows on the east and west sides of the lobby with one wipe sample collected from materials adjacent to each of the three joints (i.e., one wipe collected above the upper horizontal joints and adjacent to each of the left and right vertical joints on each window). Along the specific joint, the location of the wipe sample was selected using a random number generator to determine the location along the joint and then the distance from the joint at which the wipe was centered.

Wipe samples were collected in accordance with the standard wipe test method as described in 40 CFR 761.123. At each sample location, a 2-inch square gauze pad, saturated with hexane, was wiped across a 100 square centimeter area. All samples were transported to the laboratory under standard chain of custody procedures, extracted using USEPA Method 3540C (Soxhlet extraction), and analyzed for PCBs using USEPA Method 8082. In accordance with Section 3.3.3 of the Remediation Plan, following collection of the verification wipe samples, the sheet metal flashing was installed over the adjacent materials.

Results of the baseline wipe sampling are summarized on Table 1-2. As indicated on Table 1-2, total PCBs were reported as non-detect (< 0.20 ug/100cm^2) for PCBs in all 32 of the wipe samples collected from the exterior epoxy coated surfaces. Analytical results from the interior CMU block indicated that PCBs were non-detect in the six samples collected (< 0.20 µg/100cm^2).

2. MONITORING AND MAINTENANCE IMPLEMENTATION PLAN

This MMIP has been developed to monitor the effectiveness of the remedy for the interior and exterior materials that contain PCBs at concentrations above the high occupancy use criteria of 1 ppm remaining in place beneath the encapsulating barriers. These areas are:

- Interior Elevator Hall CMU Block Walls – CMU block walls formerly in direct contact with the caulked joint and to the first 90-degree angle have been encapsulated as follows:
    - CMU block materials formerly in direct contact with the caulked joint (i.e., sill, jambs, and header surfaces) to a distance of three inches from the joint are encapsulated using two coats of Sikagard 62 epoxy coating and sheet metal flashing;
    - CMU block materials from a distance of three inches from the joint (i.e., the extent of the metal flashing) to the first 90-degree angle (i.e., the entire wall from floor to ceiling) are encapsulated using two coats of Sikagard 550W elastomeric acrylic coating (this equates to a distance of 6.5 inches for materials adjacent to the southern elevator hall windows and on the east side of the northern elevator hall windows, to a distance of 18 inches on the west side of the northern elevator hall windows, and to a distance of 15 inches above the windows).
- Exterior Concrete Ceiling Materials – Exterior concrete ceiling materials above first floor ribbon windows over a distance of 100 feet along the northern end of the east building elevation and across the northwest building elevation (i.e., 50 feet in either direction to the next "clean" verification sample location).

The extent of these areas is depicted on the attached Figure 2-1.

2.1 INSPECTION, SAMPLING, AND REPORTING

The following describes the inspections, sampling and reporting to be conducted for this area:

- Visual inspections of the encapsulated surface will be conducted to look for signs of encapsulant deterioration and/or signs of weathering or disturbance of sheet metal barriers.
- Surface wipe samples of the encapsulated interior CMU block walls in the elevator hall areas not located beneath the sheet metal cladding will be collected using a hexane-soaked wipe following the standard wipe test procedures described in 40 CFR 761.123. A total of three samples will be collected from randomly selected locations as follows:
    - The specific floor and the side of the elevator hall to be sampled will be randomly selected using a random number generator;
    - The location of the wipe sample on the joint will be selected by randomly selecting a number between 0 and 25 (representing the two 6.5 foot long vertical joints and the upper 12 foot long horizontal joint) with the zero point assigned to the bottom of the left vertical joint and proceeding clockwise around the window (i.e., 25 would be assigned to the bottom of the right vertical joint); and
    - The distance of the wipe sample from the sheet metal cladding will then be selected by randomly selecting a number from zero to the total distance, in inches, to the first 90-degree angle.

- No surface wipe samples will be collected from encapsulated surfaces formerly in direct contact with the first floor exterior windows or the interior elevator hall windows, as direct contact access to these surfaces is prohibited by a secondary barrier (i.e., new windows and/or metal cladding installed over the encapsulant).
- A report will be prepared and submitted to EPA within 60 days of sample collection. This report will document the following:
    - Results of the visual inspections;
    - Results of the sampling and analyses;
    - Comparisons to action levels and recommendations for corrective measures;
    - Any corrective measures implemented;
    - Any non-routine major projects conducted at the building that encountered the encapsulated area, and the training and protective measures that were implemented;
    - Any proposed modifications to the monitoring and maintenance program (e.g., based on the sampling results or discussions with EPA, the frequency of the program may be modified); and
    - A statement on the continued effectiveness of the encapsulant.

The initial long term monitoring and sampling activities at the Webster House will be conducted following approval of this Plan and likely to occur in the summer months. A recommendation for subsequent rounds of monitoring will be based on these results and included in the report submittal.

It is possible that results of long term monitoring may warrant or require modifications to this plan. In the event that a modification to the MMIP is necessary, such an amendment will be proposed to EPA for approval as part of the scheduled report submittal.

2.2 ACTION LEVELS AND CORRECTIVE MEASURES

Based on a review of the products technical specifications and that it has been applied at interior locations, it is not anticipated the coatings will require any routine maintenance activities. A combination of visual inspections and laboratory sample results will be used to verify the continued effectiveness of the applied barriers. In areas where damage or deterioration of the sheet metal cladding is observed, the cladding will be repaired or replaced. Upon receipt of the laboratory results after each monitoring round, the data will be compared to the following action levels to determine whether additional monitoring or corrective measures are needed:

- If ≤ 1 µg/100 cm^2 – no additional action; long term maintenance and monitoring to continue in accordance with this plan;
- In areas where encapsulant deterioration is observed or PCBs are reported at concentrations ≥ 10 µg/100 cm^2, the following actions will be taken:
    - An additional coat of the encapsulating product will be applied and follow-up wipe samples will be collected. If analytical results indicate that PCBs are still present at concentrations ≥ 10 µg/100 cm^2 after the prescribed re-application, UMass will evaluate alternative solutions in conjunction with EPA.
- If > 1 and < 10 µg/100 cm^2 – continued monitoring will occur to establish patterns or trends in concentration. If increasing concentrations are determined, then additional coatings may be applied and/or alternative solutions will be discussed with EPA.

These levels are considered representative and protective for this project given that this area is an elevator lobby area where access is transitory in nature (students progressing to and from the dormitory rooms) and where staff would not spend any routine time. All analytical results and corrective measures will be reported to EPA in the scheduled report.

3. TRAINING AND COMMUNICATIONS

It is not anticipated that any workers or building occupants will come into prolonged or routine contact with the encapsulated areas. The only activities that may encounter the encapsulants are planned maintenance activities. It is not anticipated that workers performing maintenance activities would require any special training or need to take extra precautions due to the presence of the coatings and sheet metal cladding; however, UMass will conduct general awareness training for facility and maintenance personnel to ensure they are aware of the importance of maintaining the encapsulant.

For any non-routine projects that involve work that could encounter the encapsulant (e.g., window replacement or repair projects [although, this is unlikely given that all windows were replaced as part of the project]), relevant and appropriate worker training requirements and procedures specific to the task will be developed and implemented. Current UMass procedures dictate that all work that impacts building materials must undergo an “all hazard review”. This review would indicate that portions of building materials at the Webster House have been flagged as a having residual PCB containing material under encapsulants/barriers. As such, any work that will disturb these materials will be conducted by appropriately trained workers following the necessary work procedures for containments (polyethylene sheeting, etc.) and disposal. These activities will be reported to EPA in the monitoring report. In addition, UMass has included, as a component of their annual “Right-To-Know” and Asbestos Training Program, a PCBs in materials awareness session, including the encapsulated areas on the campus.

Table 1-1
Summary of Verification Bulk Sample Results

Webster House
UMass - Amherst

Location	Side of Building	Sample Group	Sample Frequency	Sample ID	Distance from Joint (inches) [1]	Sample Date	Reporting Limit	Total PCBs (mg/kg)
Stucco Ceiling	NE	Adjacent to Joint	1 per 50 l.f.	WH-VBC-001	5	6/16/2011	0.095	<0.095
				WH-VBC-002	5		0.10	<0.10
				WH-VBC-003	5		0.091	0.17
				WH-VBC-004	5		0.10	<0.10
Concrete Foundation (along storefront windows)	NE	4-5" on vertical concrete face	1 per 50 l.f.	WH-VBC-006	4-5	6/20/2011	0.087	0.21
				WH-VBC-007	4-5		0.091	0.51
	SW			WH-VBC-012	4-5		0.095	<0.095
				WH-VBC-013	4-5		0.091	<0.091
	SW	on-joint	1 per 50 l.f.	WH-VBC-051	0	7/22/2011	0.10	<0.10
				WH-VBC-052	0		0.10	<0.10
	NE			WH-VBC-083	0	7/29/2011	0.1	0.62
				WH-VBC-084	0		0.095	0.62
Horizonal Slate Ribbon Window Joints	East	0-1" on vertical slate face	1 per 50 l.f.	WH-VBS-005	0-1	6/20/2011	0.10	0.14 J
	NW			WH-VBS-008	0-1		0.091	0.14 J
				WH-VBS-009	0-1		0.10	<0.10
				WH-VBS-010	0-1		0.091	<0.091
	West			WH-VBS-011	0-1		0.10	<0.10
	SE			WH-VBS-014	0-1		0.10	<0.10
				WH-VBS-015	0-1		0.091	<0.091
				WH-VBS-016	0-1		0.087	<0.087
	NW	on-joint	1 per 50 l.f.	WH-VBS-047	0	7/22/2011	0.10	<0.10
	NE			WH-VBS-048	0		0.10	0.51
				WH-VBS-049	0		0.10	0.16
	SW			WH-VBS-050	0		0.10	<0.10
				WH-VBS-053	0		0.091	0.90
	SE			WH-VBS-054	0		0.095	<0.095
				WH-VBS-055	0		0.095	0.099
	NW			WH-VBS-081	0	7/29/2011	0.1	0.16
Vertical Slate Window Joints	SW	2-3" on adjacent slate face	5 of 7 locations	WH-VBS-017	2-3	6/21/2011	0.10	<0.10
	NE			WH-VBS-018	2-3		0.095	<0.095
	SE			WH-VBS-021	2-3		0.091	<0.091
	NW			WH-VBS-022	2-3		0.095	0.16
	North			WH-VBS-023	2-3		0.091	<0.091
	SW	on-joint	1/50'	WH-VBS-069	0	7/26/2011	0.095	<0.095
	SE			WH-VBS-070	0		0.1	<0.10
	NE			WH-VBC-082	0	7/29/2011	0.1	0.12
				WH-VBC-085	0		0.1	0.12
				WH-VBC-086	0		0.1	<0.10
Concrete Ceiling	East	8-9" on adjacent horizontal concrete face	1 per 50 l.f.	WH-VBC-030	8-9	6/23/2011	0.095	<0.095
	North			WH-VBC-031	8-9		0.10	<0.10
				WH-VBC-032	8-9		0.087	<0.087
	West			WH-VBC-033	8-9		0.10	<0.10
	South			WH-VBC-034	8-9		0.095	<0.095
				WH-VBC-035	8-9		0.095	<0.095
				WH-VBC-036	8-9		0.091	<0.091
				WH-VBC-037	8-9		0.10	<0.10
				WH-VBC-038	8-9		0.091	<0.091
	NW	on-joint	1 per 50 l.f.	WH-VBC-061	0	7/26/2011	0.43	**4.3**
				WH-VBC-062	0		0.087	0.95
				WH-VBC-063	0		0.091	0.12
	SW			WH-VBC-064	0		0.095	0.12
				WH-VBC-065	0		0.1	<0.10
				WH-VBC-066	0		0.091	0.16
	SE			WH-VBC-067	0		0.1	0.19
				WH-VBC-068	0		0.087	0.36
	NE			WH-VBC-114	0	8/9/2011	0.1	<0.10

Table 1-1
Summary of Verification Bulk Sample Results

Webster House
UMass - Amherst

Location	Side of Building	Sample Group	Sample Frequency	Sample ID	Distance from Joint (inches) [1]	Sample Date	Reporting Limit	Total PCBs (mg/kg)
Elevator Lobby Window	S. 7th floor	2-3" on Adjacent concrete face	1 per floor	WH-VBC-024	2-3	6/22/2011	0.48	**4.9**
	S. 6th floor			WH-VBC-025	2-3		0.19	**2.1**
	N. 5th floor			WH-VBC-026	2-3		0.091	0.49
	S. 4th floor			WH-VBC-027	2-3		0.17	**1.6 J**
	N. 3rd floor			WH-VBC-028	2-3		0.091	**1.1**
	S. 2nd floor			WH-VBC-029	2-3		0.19	**1.4 J**
	S. 7th Floor	0" from caulked joint	1 per floor	WH-VBC-041	0	7/20/2011	4.8	<4.8
	N 6th Floor			WH-VBC-042	0		0.87	**1.9**
	S 5th Floor			WH-VBC-043	0		0.95	**7.2**
	N 4th Floor			WH-VBC-044	0		5.0	<5.0
	S 3rd Floor			WH-VBC-045	0		0.91	<0.91
	N 2nd Floor			WH-VBC-046	0		0.91	<0.91
	S. 7th Floor	next perpedicular wall surface on interior	1 per floor	WH-VBC-080	Variable[2]	7/29/2011	0.091	0.39
	N 6th Floor			WH-VBC-075			0.095	0.45
	S 5th Floor			WH-VBC-076			0.095	0.54
	N 4th Floor			WH-VBC-077			0.095	0.96
	S 3rd Floor			WH-VBC-078			0.1J1	0.62
	N 2nd Floor			WH-VBC-074			0.1	0.36

Notes:
l.f. = linear feet
J denotes analytical results are qualified as estimated based on results of data validation. Additional information is included in Appendix C.
All samples submitted for PCB analysis were extracted via USEPA 3540C (Soxhlet Extraction) and analyzed via USEPA method 8082.
Total PCBs included Aroclor 1248 and 1254. All other Aroclors reported at concentrations below the minimum laboratory reporting limit.
Shaded/Bold results indicate Total PCBs reported as > 1 ppm.
1. = For samples collected from the vertical face of the storefront window foundation or slate façade, distance indicated is from the upper horizontal face of the concrete foundation or slate as applicable.

Table 1-2
Summary of Verification Wipe Sample Results

Webster House
UMass - Amherst

Location	Side of Building	Sample Group	Sample Frequency	Sample ID	Sample Date	Total PCBs (mg/kg)
Storefront Window Foundation	NE	Wipe Sample	1 per 50 l.f.	WH-VWS-093	7/29/2011	<0.20
				WH-VWS-094		<0.20
	SW			WH-VWS-107	8/1/2011	<0.20
				WH-VWS-108		<0.20
Slate Base of Ribbon Windows	SE	Wipe Sample	1 per 50 l.f.	WH-VWS-088	7/29/2011	<0.20
	SW			WH-VWS-091		<0.20
				WH-VWS-097		<0.20
	NW			WH-VWS-101	8/1/2011	<0.20
				WH-VWS-103		<0.20
	NE			WH-VWS-104		<0.20
				WH-VWS-111		<0.20
	SE			WH-VWS-113		<0.20
Slate Adjacent to Vertical Joints (storefront windows)	SW	Wipe Sample	1 per 50 L.F.	WH-VWS-089	8/1/2011	<0.20
				WH-VWS-095	7/29/2011	<0.20
	NE			WH-VWS-105	8/1/2011	<0.20
				WH-VWS-106		<0.20
				WH-VWS-109		<0.20
Storefront Window Concrete Exterior Ceiling	SE	Wipe Sample	1 per 50 l.f.	WH-VWS-087	7/29/2011	<0.20
	SW			WH-VWS-090		<0.20
				WH-VWS-092		<0.20
				WH-VWS-096		<0.20
	NW			WH-VWS-098	8/1/2011	<0.20
				WH-VWS-100		<0.20
				WH-VWS-102		<0.20
	NE			WH-VWS-110		<0.20
	SE			WH-VWS-112		<0.20
Elevator Lobby Window	S. 7th Floor	Wipe Sample	1 per floor	WH-VWS-056	7/25/2011	<0.20
	N 6th Floor			WH-VWS-071	7/27/2011	<0.20
	S 5th Floor			WH-VWS-057	7/25/2011	<0.20
	N 4th Floor			WH-VWS-072	7/27/2011	<0.20
	S 3rd Floor			WH-VWS-058	7/25/2011	<0.20
	N 2nd Floor			WH-VWS-073	7/27/2011	<0.20
Interior CMU Block Within Elevator Lobby Areas	E 7th Floor	Wipe Sample	1 per floor	WH-VWC-115	11/7/2011	< 0.20
	W 6th Floor			WH-VWC-116		<0.20
	E 5th Floor			WH-VWC-117		<0.20
	W 4th Floor			WH-VWC-118		<0.20
	E 3rd Floor			WH-VWC-119		<0.20
	W 2nd Floor			WH-VWC-120		<0.20

Notes:
l.f. = linear feet
Verification wipe samples collected from surface of encapsulated materials in accordance with 40 CFR 761.123.
All samples submitted for PCB analysis extracted via USEPA 3540C (Soxhlet Extraction) and analyzed via USEPA method 8082.

Figure 1-1 Site Plan and Deed Notice Area

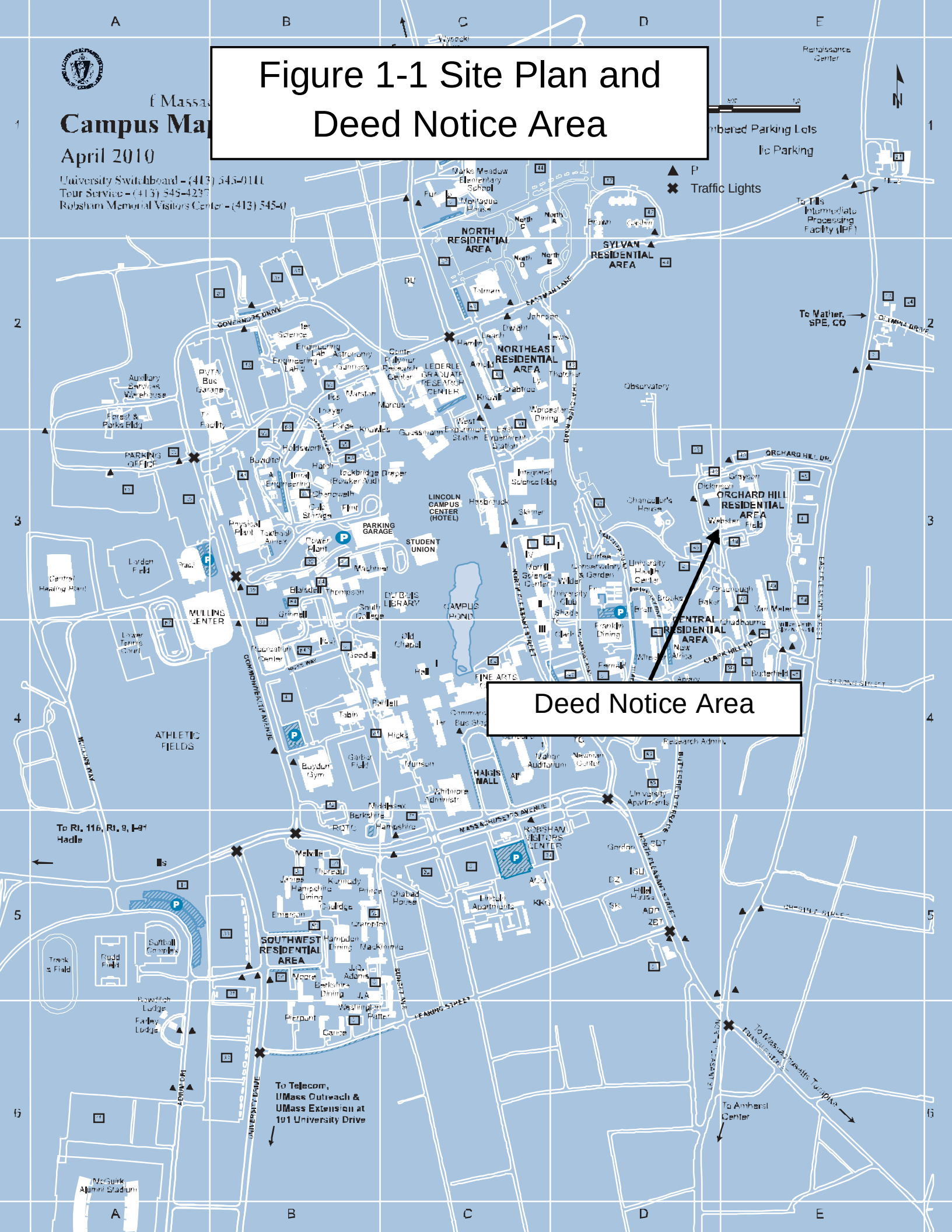
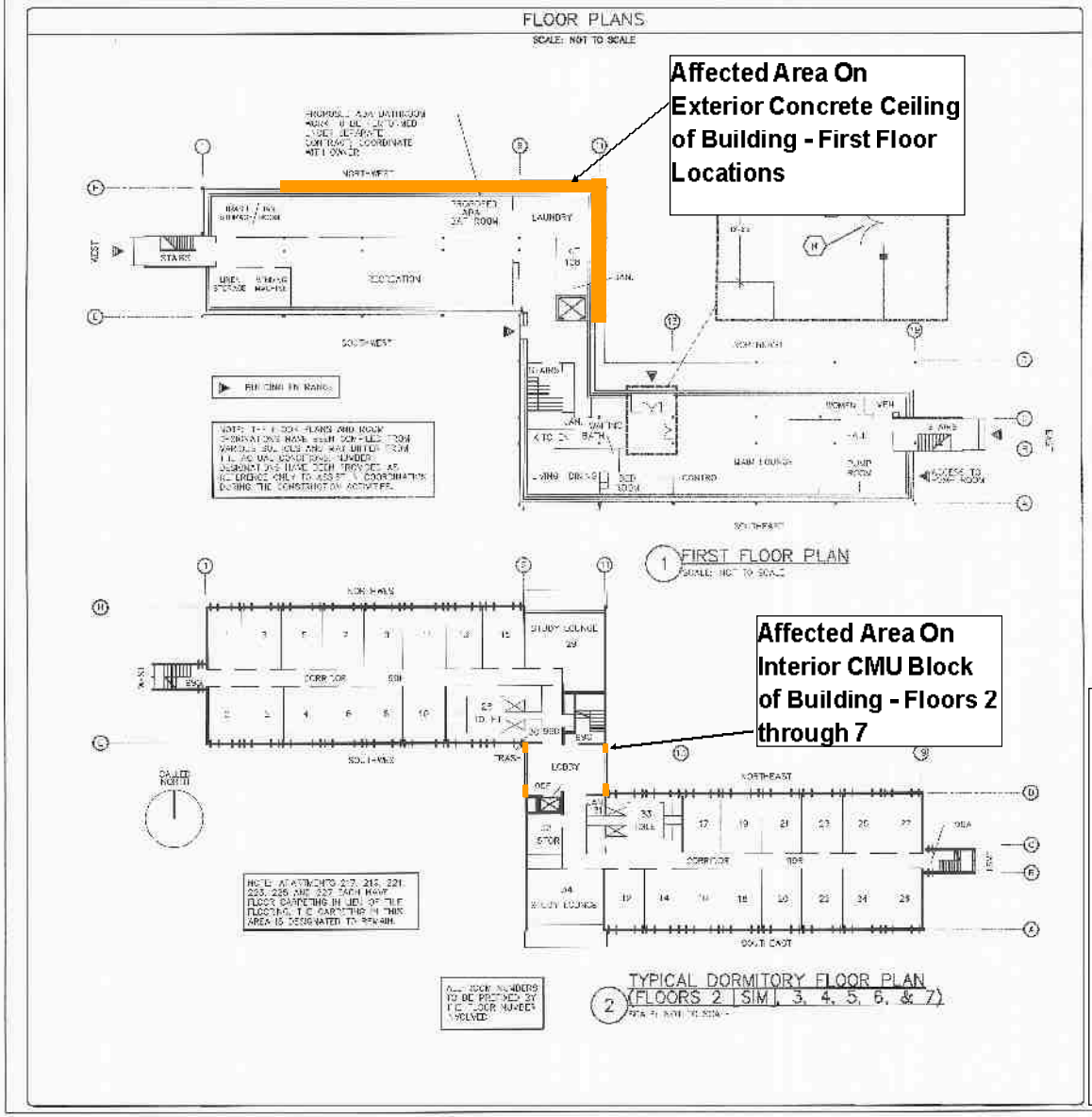
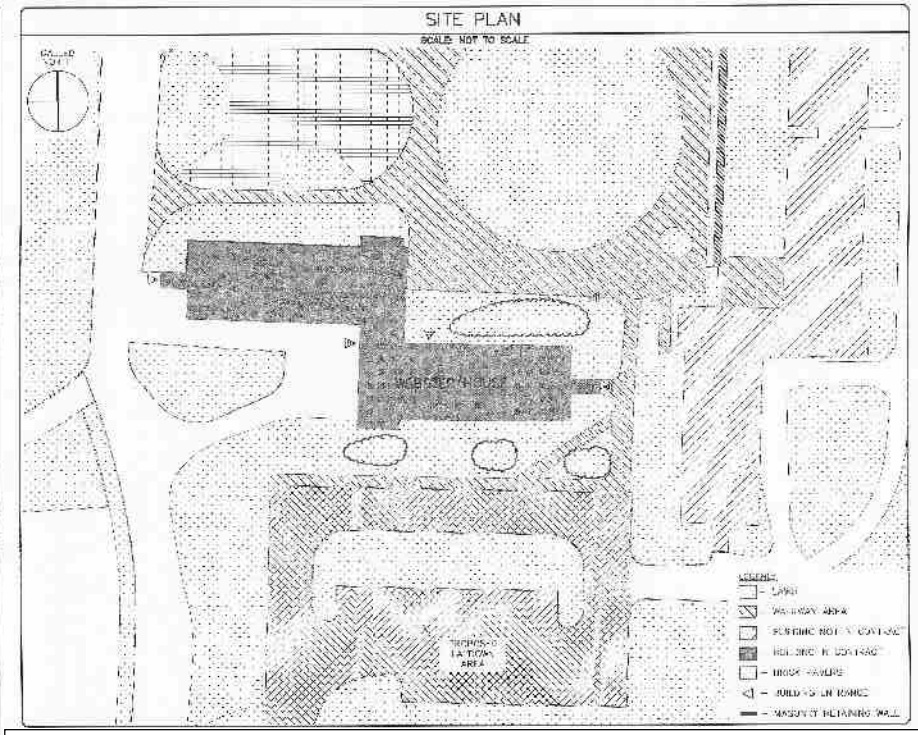


Figure 2-1 Encapsulated Building Surfaces

Drawing details taken from Webster House Window Replacement drawing D-A-333-10-001711-01-T2 dated February 3, 2011 by Gale Associates, Inc. of Weymouth, Massachusetts.